Online Music Exams

Functional Specification

Online Music Exams Website Design & Build

Giant Peach point of contact for questions:

Dawn Lakeman
Client Relationship Director

Tom Gurney
Head of Technical

Joey Hoskins
Creative Director

Date:
30 March 2020

Version:
3.1

Giant Peach
Unit 6 & 7
The Chapel Barnyard
Wylye
Wiltshire
BA12 0QQ

1. Overview

This Functional Specification is a formal statement of the Product's proposed functionality. It serves the same purpose as a contract; Giant Peach and its developers agree to provide the capabilities specified within. The client agrees to find the product satisfactory if it provides the capabilities specified herein.

This document outlines detailed functionality of the Product's Content Management System (CMS) and Front-End (what the user sees). It's incredibly important that this document is read and understood, if there are any questions please contact Giant Peach.

This is the document that the Giant Peach development team will build from, once signed off changes to functionality will incur an additional cost/time and be completed after the website has launched.

This document is used for:

1. Developing the digital platform/product
2. Evaluating the product in its subsequent phases of lifecycle
3. Determining the success of the build

Inside this document:

- A complete set of requirements for the application. It leaves no room for interpretation or assumption of anything not stated inside the document
- An overview of top-level functionality, the modules used to create the CMS and the underlying functions of each module
- Integrations included and how they interact with the product
- Front-end performance and output of the CMS

2. Functional Requirements

2.1. Hosting & Domain

We recommend hosting on our cloud-based servers. As the Product and visits grow it will be possible to allocate more server resources to keep the Product running at its best. We take regular full backups, including all the content you've uploaded and keep these on a separate server for 30 days.

For security reasons, access to our servers is kept to a minimum. As such access via (S)FTP or SSH is restricted to Giant Peach only. This restriction of access would also prohibit any third parties access, should any third parties require access we can provide a copy of the site for them to review.

2.1.1. Assumptions

- You own your domain / Giant Peach has access to onlinemusicexams.org
- Giant Peach will host the Product
- We'll purchase an SSL, on your behalf, to help keep the site secure. This is billed annually.

2.1.2. Install & Set up

Your new Product will be built on the latest version of WordPress, using a combination of PHP7, HTML5, SCSS and JS.

As part of the setup we will:

- Crawl your existing site in order to set up 301 redirects to the new site
- Setup Google Analytics (we'll use existing properties if possible)
- Configure and Install the SSL certificate
- Configure a separate test/staging site

We check for and install updates for the CMS and plugins regularly to ensure your site is up to date and secure.

The website will be/have:

- Fully responsive, mobile first web design
- Built with WordPress
- Best practice for high-speed page loading
- Hidden anti-spam features on forms
- GDPR Compliant

2.2. Optimisation & Analytics

As part of this project we will;

- Provide basic SEO setup including regular pings to Google
- Create enhanced robots.txt and .htaccess files for optimal bot crawling
- Generate clean permalink URLs
- Provide automatic XML sitemap generation
- Set up Google Analytics Reporting and bespoke dashboard
- Produce relevant schema.org tagging where appropriate

3. Quality Criteria

The Product will have the ability to handle a high volume of simultaneous requests for information in addition to a high number of concurrent users.

3.1. Speed

The server will be configured to make use of HTTP compression to serve content. This will allow the server to compress data before it is sent to the user's browser, helping to keep load times low. Additionally, where applicable, the Product will generate static HTML versions of pages to minimise the amount of work required by the server to render the page.

Product Resources (such as the JS/CSS) will be bundled into smaller modules, allowing the Product to only load what is necessary.

It is not possible to guarantee a specific load time, we will provide a Product that works as efficiently as possible. Should any requests, features or influence slow the Products performance we will raise the issue.

3.2. Scalability

WordPress has been selected because it is 'open source' and can scale infinitely, allowing an unrestricted growth in user numbers. The hosting solution too will be fully capable of offering capacity for more than the expected volume of traffic.

3.3. Compatibility

- The Product interface is browser based and should work across a range modern browsers; Edge, Firefox, Safari, and Google Chrome
- Development will be in modern languages; SASS, CSS, HTML5, PHP, JS, etc
- Where appropriate the Product will alter its appearance for older versions of browsers, the Product will not be built to display the same in all browsers

For more information on browser testing and legacy see Testing & Population.

3.4. Security

The platform will enforce security restrictions to prevent unauthorised access to user details, and maintain the privacy of user information at all times.

System access and administration should be controlled by an appropriate Administrator. This user should be nominated by you, the user name and email address to be supplied to Giant Peach.

Username and password recovery process should be standardised, sending a link to a users email. And no current or previous passwords will be displayed. Private information transactions over the internet must use an encrypted authentication mechanism such as SSL (https).

3.4.1. SSL

We'll set you up with an SSL as part of our go live process, these are currently £90 and are renewed and billed annually.

SSLs are important to help keep sensitive information sent across the internet encrypted. Generally, the information you send and receive on the Internet is passed from computer to computer to reach the server. If an SSL isn't in place, any machine along the way is able to see any data you've sent to or received from the server, including, but not limited to, usernames and passwords. Having an SSL allows that data to be encrypted so only your browser and the server can access it.

3.4.2. Privacy

Giant Peach will ensure information and links to full privacy policy are clearly labelled throughout. The system will require each individual's explicit consent to collect and/or share his or her personal information, further to this:

- Opt-in checkboxes will always by default be blank
- Opt-in cookie notice (without agreement, Google Analytics tracking will not run)
- All forms and the Product as a whole will be GDPR compliant

3.5. SLA

Our SLA allows us to place your Product under 'version control', in a git repository. We'll have a staging (test) environment as well as the live environment, so that when updates are made they are first completed locally, then pushed to the staging environment, where they are tested before being pushed live.

The SLA is issued separately for you to review, sign and return.

4. CMS Functionality

4.1. Functionality Overview

This list refers to the 'Modules' within the CMS (Content Management System), we'll go on to clarify each of these modules in this document, as well as how they will impact and function on the front end.

- Text Editor
- Pages Manager
- Home Page Manager
- Banners
- Products & Categories
- Exams
- Exam Modules
- Exam Grading
- Testimonials
- Partners
- Accreditations
- Blog & Articles
- Forms (general enquiry, specific contact)
- Administration & User Access
- System Settings & Emails

4.2. Core Functionality

4.2.1. Text Editor

There will be two forms of Text Editors; a standard text area and a full featured What You See Is What You Get (WYSIWYG) editor.

The standard text area will allow blocks of text to be entered into certain areas (banner caption for example). The style of this will be controlled by the design and template and in some instances there will be a character limit.

Using the WYSIWYG editor it will be possible to:

- Add text
- Edit/change text
- Format the text:
    - Headings (H1s through to H6s)
    - Bold
    - Italics
    - Alignment

- Add Bullet points and Numbered lists
- Add Block quotes
- Add Tables
- Embed images within the text
- Embed YouTube videos into the text
- Insert text links to web pages and documents

The style and design of the website will dictate the text-styles available for use throughout the WYSIWYG editor.

4.2.2. Pages Manager

Control the pages throughout the site:

- Add/edit pages to sit within certain areas of the site
- Remove pages
- Temporarily hide pages
- Delete pages
- Edit/update page titles
- Edit/update navigation title
- Edit/update URL (permalink)

4.2.3. SEO

While editing most content in the CMS there is an SEO Settings section that contains several tabs that allow various SEO settings.

4.2.3.1. General

4.2.3.1.1. Meta Title

This field is displayed as the page title in the browser tab, typically Google (and other search engines) will pull this through in their search results. By default there will be an automatically generated Meta Title here, but this can be changed to anything. There will be a score displayed to the left to help determine the best length.

4.2.3.1.2. Meta Description

Similarly to the Meta Title, this field is used by search engines to help them determine what the page is about, there will be an automatically generated description and this can be overwritten. It's usually a good idea to fill this out with a decent short description about the page content. However, search engines won't always display this content as they may pull through content from the actual page if they deem it more relevant.

4.2.3.1.3. Tracking Code

It will be possible to add additional tracking code to pages added through the CMS. This can be done by pasting the tracking code into the free text field on each page in the CMS.

4.2.3.2. Social

Set what is displayed when content is shared via the site with the Social Tab with the following settings:

- Open Graph Title - The title that will be displayed when the content is shared
- Open Graph Description - The description that will be displayed when the content is shared
- Twitter Title - The title that will be displayed when the content is shared on Twitter
- Twitter Description - The description that will be displayed when the content is shared on Twitter
- Social Image URL - the image that will be displayed when the content is shared

4.2.3.3. Visibility

It is possible to adjust how search engines access the content by editing the following fields:

- Canonical URL - for multiple pages with the same content a Search engine will pick one as the main URL and ignore the others, this setting suggests to the search engine which URL should be the main URL
- Noindex - this tells search-engines to not index the content or display it in their search results
- Nofollow - this tells search-engines to not follow any links in this content
- Noarchive - this tells search-engines not to save a copy of this content
- Exclude from local search - this excludes the content from the on-site search
- 301 redirect - this forces the post to redirect to somewhere else

4.2.4. Blog

Add the following to an individual Blog Post:

- Title
- Publish Date (for scheduling future posts, or backdating existing posts)
- Thumbnail (list/grid) image x1
- Banner image
- Category
- Tag

The text within an article can be styled as detailed in the 'Text Editor' section above, where any number of images can be added into the page content.

4.2.4.1. Blog Categories

Categories will be managed within the Posts section of the CMS and can be added or deleted at any time (posts within that category will not be deleted).

Posts can be assigned to multiple categories, but on the list view only the first category will display.

4.2.5. Media Gallery

The Media section of the CMS is a central place to manage all images and documents uploaded. The Media Gallery will hold up to 5GB of data, this can be increased but may affect hosting costs. This is separate to the storage used for exam recordings.

Images uploaded here will automatically be cropped and resized, so they can be used anywhere on the site at the optimal size and resolutions.

When uploading an image the CMS will automatically generate various different sizes (crops) based on the image sizes laid out in the designs. For example, if a banner image of 1920px x 1080px was uploaded, the CMS will automatically create versions at 400 x 400, 750 x 500 etc (sizes listed here are just examples) for use in different areas across the site.

Image fields within the CMS will have the ideal image dimensions listed, images uploaded should always be at least the size listed.

The media gallery has built-in functionality to manually resize/crop images, but we would advise cropping or resizing in Photoshop (or another image editor) before uploading the image to the CMS. All images uploaded to the site should be compressed and 'Saved for web'.

It will be possible to add 'Title' and 'Alt' text to all images added to the website through the CMS.

User Exam Recordings will not be visible within the Media Gallery.

4.2.6. User Access / Administration

For security reasons we restrict access to certain aspects of the CMS, therefore, it will not be possible to;

- Install/update plug-ins
- Edit or change the theme or theme files
- Gain FTP access

If any of the above are required please contact Giant Peach. This may affect any SLA, support or maintenance package already in place.

The Users area lists out the current CMS users and it is possible to create new users. A new user account at a minimum requires;

- Username
- Role (Manager, Examiner or Super Examiner)
- Valid email address
- Password

Passwords are generated automatically by the CMS, the suggested password can be overridden before creating the account. Once created, if a valid email is added the CMS will send an email to the new User prompting them to change their password.

4.2.7. Forms

Details collected by forms on the website will be emailed to a specified email address, this email address can be set within the CMS. Form submissions will be stored within the CMS, these will be encrypted at rest and only visible/decrypted to those with permission to view them.

The forms will make use of a hidden honeypot feature to minimise spam. Whilst this can help to eliminate a majority of spam submissions, it's important to note that some entries may still get through.

Forms on the site will comply with GDPR, as such users will have to 'opt-in' to agree to the privacy policy, how data is used and if they wish to receive further emails.

Forms will be configured to trigger events in Google Analytics to track conversions. These events can be used to configure Google Analytics Goals in the Analytics dashboard.

4.2.8. Menus

Within the CMS, it will be possible to configure the links visible within the website's various menus, eg. Main Menu, Footer Menu. It will be possible to add and remove pages and other posts to each menu, and set the navigation label for each menu item (if different from the default page title of the menu item).

It will not be possible to change the location of the menus within the frontend of the site, this would need to be changed by Giant Peach if required.

4.2.9. Website Settings

Within the Website Settings area of the site, it will be possible to configure:

- Contact email address
- Contact telephone number
- Postal address
- Social media links eg. LinkedIn, Facebook, Twitter, Instagram

4.3. Specific Functionality

4.3.1. Banners

Banners will be managed within the Pages section of the CMS depending on the page template used. For each:

- Add and remove multiple slides
- Where multiple slides are added, the banner will either slide or fade automatically between slides
- Reorder the slides

Within a slide:

- Add an image
- Add a caption which will sit on top of the banner
- Add link (to a page within the website or external)
- Add link text (e.g. 'Learn More')
- Add a short video loop (no more than 10 seconds, up to 6MB, MP4 files). On devices that don't support videos an image will display instead.
- Add a YouTube or Vimeo ID (this will display a Play button over the slide, clicking that will open the video in an overlay)

4.3.2. Flexible Content

Where applicable, the Product will make use of Flexible Content blocks. It will be possible to add, remove and drag and drop these blocks to alter the page layout. The following blocks will be available at launch:

- Feature Block (Text + Image)
- Text Block
- Newsletter Sign up Block
- Accreditations Block
- Partners Block
- Testimonial Block
- Video Block
- Products Block (carousel of products)
- Form Block (Contact or Newsletter Sign up)

4.3.3. Home Page Manager

Access the homepage manager from within the Pages section of the CMS:

- Control the banner as specified above
- Add/Remove/Reorder Flexible Content Blocks

4.3.4. Exams

Exams are built up of a collection of Exam Modules (see below). For each exam you will be able to add:

- Title
- Mock Exam: Y/N
- Description
- Expiration time frame in hours *(if not Mock Exam)* - after purchase *(e.g. exam expires 24 hours after purchase)*
- Assign and reorder exam modules
  - For each module you will be able to set a completion requirement, choose from:
    - Must be completed before proceeding with subsequent modules *(eg. Exam Rules / Identity Check)*
    - All preceding modules must be completed before completing this module *(eg. Theory Exam)*
    - No requirement *(can be completed in any order)*
- Marking Template *(if not Mock Exam)*, choose from:
  - Default
    - Disciplines *(these will likely align with the Exam Modules)*
      - Assign the relevant Exam Module to the Discipline. *(used for Exam Grading).* The module name will be automatically used as the Discipline label
      - Discipline Mark Weighting *(defaults to 20)*
      - Sub-disciplines *(e.g. C Major, A minor etc)*
        - Subdiscipline Label
        - Subdiscipline Key
  - Debut
    - Disciplines *(these will likely align with the Exam Modules)*
      - Assign the relevant Exam Module to the Discipline *(used for Exam Grading)*
- Grade Breakdown PDF *(if not Mock Exam)* - will be displayed to the users when they review their grades
- Grade Brackets *(if not Mock Exam)*
  - Pass Bracket *(e.g. >50%)*
  - Merit Bracket *(e.g. >71%)*
  - Distinction Bracket *(e.g. >85%)*
  - Content for Grade Modal (for each grade bracket)
    - Heading (eg. “Amazing”)
    - Video mp4 (eg. Pass Video)
    - Text (eg. “Well done, you passed!”)

4.3.4.1. Mock Exams

Mock Exams are intended only for the user to test the exam experience in their account area.

- Mock exam recordings will not be saved
- Mock exam sessions will not be visible to any admin, examiner or super examiner
- Mock exam sessions will not be reviewable
- Mock exam sessions will not be graded

For launch, the user will be able to reset the progress of their entire mock exam in their account area if they choose to (on the exam overview page), but they will not be able to reset individual modules. They can only reset to starting from scratch.

4.3.5. Exam Modules

Exam Modules are the building blocks of an Exam. They are broken down into segments, these segments are reorderable and for each segment you will be able to set:

- Type
    - Instruction / Tutorial
    - Theory
    - Recording
- Sections (used for text content, user scrolls through sections before recording/proceeding).
  For each section:
    - Label (used for jump to link on module page)
    - Heading
    - WYSIWYG Content
- Timeline *(if Type is not Theory) - see Timeline*
- Questions / Answers *(if Type is set to Theory)* - see Theory Exam Modules
- Theory Module Time Limit *(if Type is set to Theory)* - see Theory Exam Modules

Using the duration field you will be able to create a timeline for a module, for example:

Example 1 (Sight Reading Module)

- Play audio instructions for 1 minute, then
- Display PDF of sheet music for 1 minute 30, then
- Play video that scrolls with sheet music for 2 minutes, user plays along

Example 2 (Rhythmic Recall Module)

- Play audio instructions for 1 minute, then

- Play rhythmic audio beat for 10 seconds, then
- User has 1 minutes to clap rhythm from memory

It will be possible to assign modules to multiple exams. For example, it will be possible to create one Exam Rules and Preparation module which can be assigned to multiple exams.

The order of modules is determined on each individual exam.

4.3.5.1. Timeline

For each timeline block, it will be possible to select:

- The Media Type of the block *(one of Spacer, PDF, Audio or Video)*
- The Options for this block and the duration (in seconds) of each option
- The Label of the timeline block (*identifier for segment, used to create jump to links for examiner when grading*)

4.3.5.1.1. Spacer

This type can be used to insert empty space for the given duration into the timeline. Eg. to give time for the user to play back a rhythm from memory, or to allow them time to play a piece of music.

4.3.5.1.2. PDF

Where a PDF is uploaded, this will not scroll automatically for the user; the user will need to scroll it themselves. The PDF media type is intended for sight-reading exams where a user is allowed to review a piece before playing it.

4.3.5.1.3. Audio

The audio media type is intended only to play audio, where only listening is required.

4.3.5.1.4. Video

Where users should play a piece of sheet music against a metronome beat and/or with accompanying audio instructions, we recommend submitting a video with the visual scrolling and audio/metronome combined, so that the pace, scrolling speed and beat can be controlled when editing the video.

The video media type is intended for sight-reading exams where a user is required to play along to a piece of music, and sheet music is provided.

4.3.5.1.5. Options

For some exams (for example, a sight reading exam), it may be necessary to upload multiple audio/music/video files. This will allow the system to randomly pick one of the uploaded options so that a user retaking the exam may not necessarily see the same piece they had on a previous exam (to prevent cheating).

For example, if there are 3 options for sheet music, the admin would upload 3 PDF options to the PDF Timeline Block, and 3 options to the Video Timeline Block (for when the music is played by the student). For the system to match the correct PDF to the correct Video, the order of the 3 attachments should match in each block.

The duration of each option (in case they vary) can also be set.

An simplified example PDF Block:

- PDF 1 - duration 30 seconds
- PDF 2 - duration 60 seconds
- PDF 3 - duration 90 seconds

And the corresponding, matching Video Block:

- Video 1 - duration 60 seconds
- Video 2 - duration 120 seconds
- Video 3 - duration 90 seconds

If multiple options aren't required for the module, one attachment and one duration can be set per block.

4.3.5.2. Theory Exam Modules

For a theory exam module, it will be possible to enter and reorder questions.

For each question, you can enter:

1. Question text
2. Question Image *(This field is optional)*
3. Question WYSIWYG content *(This field is optional)*
4. Multiple choice answers (no other question types will be available)
    a. *Answer text*
    b. *Correct/Wrong*

Each theory question will have a weighting of 1. The overall percentage is calculated from the number of correct answers given, divided by the total number of questions.

4.3.6. Exam Grading

The following user roles will exist on the website

- Manager
- Examiner

- Super Examiner *(used by award bodies ie. TLM to approve Examiner's grades)*

These accounts will have access to the backend of the website.

4.3.6.1. Managers

Managers will be able to view all in-progress and completed exams, and be able to reset the user's progress for the entire exam, or individual exam modules, at their discretion.

They can also reassign the status of the exam:

1. Not started
2. In progress
3. Needs Grading
4. Needs Super Grading
5. Grade Approved

If a technical issue occurs during the recording (eg. the framerate dropped below the minimum during the recording), or the video was submitted before the end of the module (e.g. because the user refreshed the page), an alert will be shown to the Manager, Examiner or Super Examiner on that module, stating that a technical issue may have occurred.

Mock Exams will not be visible to Managers.

4.3.6.2. Examiners

Examiners will be able to view:
- unassigned completed exams (and assign these exams to themselves)
- exams they have been assigned

They will not be able to view exams that have been assigned to other examiners. They will not be able to view Mock Exams.

For each module, they will be able to:
- View the recorded video of the user
- Listen to the audio of the module
- View the sheet music of the module

They will mark each module as they go. Areas of the marking template not relevant to the module currently being viewed will be greyed out/uneditable until they progress to that module, saving as they go.

After they have reviewed all modules, they will be able to review the completed marking sheet and submit the final grades.

For Debut Exams, when examiners submit final grades, a request will fire to TLM that an exam has been graded. The certificate will automatically be sent back to the site, a Super Examiner does not need to approve the grades.

Once TLM have sent a certificate for the exam, an email notification will be fired to the user to say their grade is ready to view, and the grade will be viewable in their account. See Grades / Certificates

For non-Debut exams, when examiners submit final grades, a request will fire to TLM that a Super Examiner needs to approve the grade (see Exam Moderation).

Exams that have been graded as failed will not need to be reviewed by a Super Examiner.

4.3.6.3. Super Examiners (TLM)

Super Examiners will be able to see all exams where grades have been submitted, review the exam in the same way Examiners can, and approve or reject the grades.

Certificates generated by TLM can be passed to the website via an API (see Exam Moderation). Once TLM have sent a certificate for the exam, an email notification will be generated to the user to say their grade is ready to view, and the grade will be viewable in their account. See Grades / Certificates

4.3.6.4. Marking Templates

Important: Detailed below are the two marking templates that will be built for launch. Additional marking templates can be developed as needed after launch, but will require additional quotes, to be agreed in the future, as they will depend on the requirements of the exam/award body for marking.

4.3.6.4.1. Default Marking Template

On the default marking template each discipline (or sub-discipline) will be displayed as a separate row. Each row will contain five inputs, for each of the five criteria (these are hardcoded):

- Tempo (tempo)
- Rhythm (rhythm)
- Note Accuracy (note_accuracy)
- Touch (touch)
- Technicality (technicality)

For each input, the examiner will be able to enter a number:

- 0 (Not Attempted / Not Yet Marked)
- 1 (Fail)
- 2 (Pass)
- 3 (Merit)
- 4 (Distinction)

The totals for each row are added together to give a total out of a possible 20.

If the discipline is split into sub-disciplines, the Discipline total is calculated as the average score:

```
Discipline Total = Sub Discipline Total / Number of Sub
Disciplines
```

Once calculated, the Discipline total is compared to the discipline mark weighting to determine the weighted total.

Eg. If Discipline Total is 12/20 and Discipline Mark Weighting is 15:

```
Weighted Discipline Total = 12 * (15 / 20) = 9
```

Eg. If Discipline Total is 15/20 and Discipline Mark Weighting is 18:

```
Weighted Discipline Total = 15 * (18 / 20) = 13.5 => 14
```
(rounded to nearest integer)

The theory total is calculated from the theory exam percentage total compared to the Theory Mark Weighting.

Eg. If Theory mark is 10 correct out of 15 questions, and Theory Discipline Mark Weighting is 25:

```
Weighted Theory Total = 10 * 25 / 15 = 16.666 => 17
```
(rounded to nearest integer)

Eg. If Theory mark is 12 correct out of 20 questions, and Theory Discipline Mark Weighting is 20:

```
Weighted Theory Total = 12 * 20 / 20 = 12
```

The weighted discipline and theory totals are added together, to give a final exam total. This is compared to the maximum possible weighted total (taken from the Grade Builder) and used to calculate the total mark as a percentage.

The grade will be determined by the grade brackets as entered in the Grade Builder (see Exams).

4.3.6.4.2. Debut Marking Template

On the marking template used for Debut exams each discipline will be displayed as a separate row containing a dropdown (with options for Pass or Fail) and a textarea (for comments).

The theory exam mark is pulled through automatically as a percentage.

The overall mark is calculated in the following way: each row has the value:

- Pass = 1
- Fail = 0
- If theory mark percentage is greater than or equal to 50, return 1; otherwise, 0.

These values are added together and divided by the total number of rows:

```
finalMark = totalScore / numberOfRows * 100
```

The grade will be determined by the grade brackets as entered in the Grade Builder (see Exams).

4.3.7. Testimonial

You can add testimonials to the site and include the following information:

- Testimonial/Quote
- Name/Source
- Image

You will be able to add these Testimonials to a page using the Testimonial Flexible Content Block.

4.3.8. Partners

Add the following for each:

- Title
- Logo
- URL

You will be able to display the Partner logos using the Partners Flexible Content Block.

4.3.9. Accreditations

Add the following for each:

- Title
- Description
- Logo
- URL

You will be able to display the Accreditation logos using the Accreditation Flexible Content Block.

4.4. E-Commerce Functionality

4.4.1. Product Categories

For each Product Category you can add:

- Title
- Parent Category (if sub-category)
- Banner Image x1
- Description

4.4.2. Product Information

Add the following to a Product:

- Product Name/Title
- Category (Assign from list)
- SKU
- Full Description (textarea field)
- Course Provider Information / URL
- Corresponding Exam
- Corresponding Mock Exam
- Image(s)
- Price
- Sale Price
- Tax Class

4.4.3. Product Attributes

Product Attributes are used to group products, similarly to Product Categories. They will be used to filter products on the category page. Attribute terms can also have their own pages, similar to category pages, where all the products assigned to that term (eg. “Orange”) will show. For launch, only the Provider/Brand Attribute Page will be configured.

Attributes will have a name (eg. Provider) and for each attribute you can configure multiple Terms.

- Term name (eg. “Orange”)
- Banner Image x1
- Description

For launch, the configured Attributes will be:

- Instrument
- Provider
- Level (Terms: Beginner, Intermediate, Advanced)

4.4.4. Discount

Discount codes can be created, which are entered at checkout. Discount can be applied to:

- All Products
- All Categories
- Specific Products
- Specific Categories

Types of discount include:

- Percent (%) off
- Amount (£) off
- Required minimum spend (spend and save)
- Free Delivery

Codes can be set so that they can be used once, or multiple times per user, and in conjunction with other codes, or on sale products.

4.4.5. Customer Information

View the record of each customer registered to use the site and can edit these details. Within the CMS the following Customer Information will be available:

- Full Name
- Email Address
- Account Details
- Address
- Shipping Address (if applicable)

4.4.6. Orders

Once an order has been submitted successfully, a record of the order will be stored in the CMS and can be viewed at any time.

Each order is given a unique Order ID and can have any of the following status':

- Pending payment
  - Order received, no payment initiated
  - Awaiting payment (unpaid)
- Failed
  - Payment failed or was declined (unpaid)
  - Note that this status may not show immediately and instead show as Pending until verified
- Processing
  - Payment received (paid); order is awaiting fulfillment
- Completed
  - Order fulfilled and complete – requires no further action
- On-Hold
  - Awaiting payment – payment confirmation required, or on hold for another reason
- Cancelled
  - Cancelled by an admin or the customer
  - No further action required.
- Refunded
  - Refunded by an admin
  - No further action required.

An email can be sent to the client while changing the status of an order.

4.4.7. VAT Settings

VAT Classes can be added to the CMS as a setting, classes can be applied to products when adding/editing a product within the CMS.

When you add a product you'll be able to apply the VAT class at product level from a predefined list.

Create VAT Classes with:

- Name (i.e. Standard)
- Country(ies)
- Rate (percent(%) applied)

It will be possible to have one VAT class that applies to different levels of TAX, i.e. Class = "Standard: UK/20%, France/15%, Spain/5%" - Setting the "Standard" rate would apply the correct level of tax for the different countries.

These classes can be added, edited or removed at any time.

4.4.8. System Reporting

Create the following Sales reports on orders, within set time frames:

- Inc. VAT
- Ex. VAT
- Before and after discount/ sales
- Discount Codes/ Promotions
- Per product
- Per customer

Reports can also be exported as a CSV file so that you can search and sort for all the relevant metrics you might need that are not explicitly provided as a report (as listed above).

5. Integration

5.1. Payment Gateway

5.1.1. Stripe

Payments will be made via Stripe and the process will link out to Stripe to capture the payment which ensures PCI compliance, as such full card details will not be stored within the shop CMS.

5.2. Email Marketing

5.2.1. JiffyMail

For launch the site will use JiffyMail as your chosen email marketing platform. We'll include an option to sign up to marketing emails on website forms, and ensure that when users agree to opt-in, their email addresses are passed straight into the relevant JiffyMail lists via the API.

5.3. Exam Moderation

5.3.1. TLM

TBC - We have based this off the existing integration, please provide as much documentation / information as possible

When final grades are submitted for an exam by an Examiner, the product will send a request to the TLM API URL. The following data will be sent:

- "model" (set as moderation_request)
- "forename" (from Identity Check submitted name, see Active Exams)
- "surname" (from Identity Check submitted name, see Active Exams)
- "dob"
- "gender"
- "orange_id" (userID)
- "orange_email" (userEmail)
- "grade"
- "course_id"
- "course_name"
- "check" (set as 0)

When an exam has been submitted and is available to review, a notification will be sent to TLM. They'll be able to log into the admin using their Super Examiner account to review the exam.

Once reviewed, TLM will be able to generate a certificate and pass it through to the system via the /api/certificates/ endpoint. The system will then save the certificate against the user and send off an email notification letting them know their grade is ready to view. See Grades / Certificates.

For Debut Exams, when examiners submit final grades, a request will fire to TLM that an exam has been graded. The certificate will automatically be sent back to the site, a Super Examiner does not need to approve the grades.

5.3.2. Recordings

All exam recordings will be stored in a private S3 bucket and only accessible with a valid access token. When an Examiner / Super Examiner is marking / reviewing an exam the system will generate the necessary access tokens in order to display the recorded video.

All recorded videos will be stored for a maximum of 30 days, after which they will be permanently deleted automatically.

The S3 bucket is completely separate from the Web Server so performance will not be affected. Videos stored in the S3 bucket will not be available in the Media Gallery and it will not be possible to browse the video library.

5.4. Maps

5.4.1. Google Maps

We'll use Google Maps to show any location across the site, especially where interactivity is required. This is useful when it's required to show an exact location of an office, event or other. If you want us to use something other than Google Maps, please let us know.

6. Front End Functionality

This is a page-by-page (Template) breakdown and understanding of the front end functionality, in some cases where page elements appear multiple times there will be repetition, however, truly global elements will be separated out. The relationship established in the CMS Functionality section will be highlighted.

6.1. Global Elements

6.1.1. Header & Navigation

The header of the site will disappear on scroll but reappear by sliding in from the top as the user begins to scroll back up. The logo will link to the homepage of the website.

While browsing on mobile, the navigation will utilise an off-canvas menu, a menu icon will appear (top right) and when clicked it will activate the menu.

The menu will animate in from the right hand-side of the screen, as it does, the menu icon (of three stacked lines) will change to a times ('X') or close icon. The menu will completely cover the page content of the website, it will not be possible for the user to scroll content 'behind' the menu and the user will not be able to access that content without clicking the close icon.

Clicking the close icon will close the menu, which will animate in reverse, disappear off-screen and the close icon will return to its former state of three stacked lines.

6.1.2. Banners

If a banner has only one slide added to it the banner will be static, it will not slide/rotate and no additional styles will be applied. For example, the Next/Previous arrows will not show because they are not applicable.

Where multiple slides are added:

- A dot will appear for every slide added, an active state will indicate which slide is current
- The banner will slide automatically after 5 seconds
- On mobile it will be possible to drag/swipe through slides

When video has been uploaded:

- Video loops will play in place of an image on a slide
- Full videos will play in a pop-up/modal, after clicking 'Watch Now'

6.1.3. Footer

Social links in the footer will open in a new window (or tab). The copyright date will update itself annually.

6.1.4. Text

The text within the site can be styled as detailed in the 'Text Editor' section (within this document). As such, images and videos can be embedded into the page itself, except for where the styles are pre-determined or stated otherwise.

6.1.5. Phone Numbers

If the device supports it, any phone numbers entered via the CMS will automatically open the devices default phone app when clicked or tapped.

6.1.6. Forms

All forms on the site will benefit from validation error/success styling.

If a form errors:

- A message will display above the form to indicate errors
- Each field that has an error will be highlighted

Error validation and styling will never appear before a form has been submitted.

Upon success, the user will be shown a success message indicating that the form has been submitted successfully.

6.2. Flexible Content Blocks

The following blocks can be added/reordered to any static page, including the homepage:

6.2.1. Latest News / Blog Articles

This area will be populated by the blog, the two most recently published articles will be displayed, most recent first. Each post will show:

- Thumbnail image
- Date
- Post title

6.2.2. Feature (Image + Text) Blocks

These blocks display a block of text alongside an image:

- Image (positioned left or right)
- Text
- Optional Links

6.2.3. Text Blocks

These blocks display a block of text:

- Text
- Optional Links
- Width/offset of text block

6.2.4. Call To Actions

This block will show three options for the user, eg:

- Purchase Your Exam
- Take Your Exam
- Receive Your Results

For each option, it will display:

- Heading
- Text
- Link

Below this, it will show a list of styled bullet points if entered, eg:

- 24-7

- Enjoyable
- Fast Results
- Eco
- ...etc...

6.2.5. Partner Content Block

Logos will be displayed in a row of five, if more than five have been assigned the front end will utilise a carousel;

- Next / Previous arrows will show
- The carousel will slide automatically after 5 seconds
- On touch devices it will be possible to drag/swipe through slides

If no logos are assigned to the partner logos section then the page will dynamically shrink to eliminate any gaps.

6.2.6. Accreditation Content Block

Assigned Logos will be displayed in a grid of 2 per row, up to a maximum of 6.

To the side of the logos, a text block will appear with heading, text and links.

6.2.7. Testimonials Block

Where more than one testimonial is added to the block the testimonial will change each time the page is refreshed.

Each testimonial will display:

- Quote
- Name/Source
- Image

6.2.8. Products Block

Products will be displayed in a row of three, if more than three have been assigned the front end will utilise a carousel

- Next / Previous arrows will show
- The carousel will slide automatically after 5 seconds
- On touch devices it will be possible to drag/swipe through slides

Each product will show:

- Thumbnail Image
- Product Name

- Price
- Link to view

6.2.9. Video Block

This will display a background image and caption in a banner with a play icon. On clicking play, a modal will open within which the full video will be embedded to play, in the same way as the banner displays videos, if applicable.

6.3. Homepage

The homepage will display any flexible content blocks assigned to it. These can be added/removed/reordered as necessary.

At launch this will be:

1. Partner Block
2. Video Block
3. Call To Action Block
4. Products Block (Find an Exam)
5. Testimonial Block
6. Accreditations Block
7. News Block
8. Text Block

6.4. Blog

6.4.1. List Page

Blog posts will be displayed on the front end in a grid view with the most recent post first, showing 12 posts on first load. Each Post will show:

- Thumbnail image
- Date
- Post title

Once more than 12 Blog Posts have been added to the CMS, the front end will make use of a Load More button. Once clicked the site will load the next 12 posts and display them on screen. Clicking on a Blog Post will take the user through to the individual Blog Post page.

6.4.2. Categories

On the front end the categories will be used to populate a dropdown for the user to filter articles by. If a category has been added to the CMS but doesn't contain any posts it won't be visible on the front end.

6.4.3. Post (Article Page)

It will be possible to share Blog Posts via Facebook & Twitter - using the social media engines share code as well as sharing with a friend via email. The list of categories a post belongs to will be visible on the article page.

Other blog posts will appear below, in date order with most recent first. Each post will show:

- Thumbnail image
- Date
- Post title

6.5. Contact

The Contact Page will display the business address details and social profile information. The page will display the General Enquiries form by default, it will be possible to access the Trade Enquiries form by selecting it.

6.5.1. General Enquiries

This form will collect

- Full Name*
- Email Address*
- Contact Number
- Subject
- Message*

*Required fields

6.6. Shop

6.6.1. Product Category List Page

Each category page will have space for a banner image, caption and short description.

The products assigned to the category will display in a grid. Each product will show:

- Product image
- Product name (Exam name)
- Price

- Link to view product (Exam)

Once more than 12 Products have been added to the CMS pagination will appear. Customers will be able to access specific Product information by clicking on the grid item (Product).

The product listing will be filterable for launch by:
- Instrument
- Provider
- Level

6.6.2. Brand/Provider List Page

Brand pages will be configured from the product attribute “Provider” and will show a banner image, caption and description. They will appear in the same way as the Product Category List Page, but without the filter.

6.6.3. Product Detail Page

From this page the Customer will be able to add the product to the basket.

The page will list the minimum system requirements for taking an exam (device/browser/minimum screen size). If the user is browsing from a mobile or tablet device (or a device without a webcam) a message will be displayed notifying them that their current device will be unable to be used to take an exam.

It will be possible to share Products via Pinterest, Facebook & Twitter - using the social media engines share code, as well as sharing with a friend via email.

6.6.3.1. Related Products (Exams)

Related Products will show on each Product Detail Page as long as they have been uploaded and assigned within the CMS. If more than three Products have been assigned they will appear in a carousel on the front end that the user can scroll through. The carousel will hold a maximum of 12 products.

6.6.3.2. Product Sale/Discount

Discounts on individual products will be shown on the front end by having a strike through the original price and the new discount price will show.

6.6.4. Basket

A Customer can review their Basket before they start the Checkout Process, from here Customers can:

- Update Product Quantities
- Remove Products
- Enter Discount Code
- Enter Checkout Process
- Continue Shopping

It will be possible for Customers to edit the quantities of items in their basket, using '+' and '-' buttons next to the number shown. For exam products, it will only be possible to purchase a maximum of one of each exam during one checkout.

If a customer adds to basket an exam they already have in their account (active or completed but unmarked), an alert will show prompting them to remove this product from their basket. They will not be able to proceed to checkout before they do this. They will only be able to repurchase the exam if they have previously failed the exam.

Customers can enter a discount code, this will be applied and the Basket value updated. Product prices should be entered inclusive of VAT. The amount of VAT included in the total will be shown on the basket.

6.6.5. Checkout

To progress through the Checkout Process, the Customer will need to enter the following information:

- Name
- Telephone
- Email
- Billing Address
- Shipping Address (if different to Billing Address)
- Newsletter sign-up

The customer will also register an account during checkout, or be prompted to log in to an existing account if they are not logged in already. It will not be possible to checkout without creating an account.

Exams will be virtual products, so will not require a shipping address for purchase so no shipping will be charged. For launch, no shipping rules will be set up and the system will default to free shipping.

During the Checkout Process the design of the website will change slightly, this is often referred to as an 'Enclosed Checkout Process'. By leaving out navigational elements, we're able to remove unnecessary distraction from purchasing allowing the customer to focus purely on completing their purchase.

The design however will have some additional elements to aid conversion, more prominent security logos and messages will give confidence and reassurance.

Apart from a Homepage link, the logo, customers can only go in one direction, towards payment.

Once payment has been completed on an Exam Product, the related Exam (and related Mock Exam, if applicable) will be added to the customer's account area

Once payment is complete, the customer will receive a branded email confirming their order and listing all the items ordered.

You will receive an email confirming that an order has been placed.

6.6.6. Customer Account

6.6.6.1. My Account

Once an account has been created, the customer can access their My Account section.

From here Customer can view:

- Active Exams - see Exams Account Area Section
- Completed Exams - see Exams Account Area Section
- Grades / Certificates - see Exams Account Area Section
- Orders History

And edit the following:

- Personal Details
- Email Address
- Password
- Addresses (previously used)

6.7. Exams Account Area Section

6.7.1. Active Exams

The Active Exams section will list out all exams that are yet to be started or in progress. Active Exams will clearly display their due date. If an exam isn't completed before it's due date it'll be moved into the Completed Exams section and labeled as Expired. A user will be unable to complete an expired exam.

In an Active Exam, users will be able to see their progress and view a list of exam modules. They will be taken through the steps needed to complete the exam. Their upload speed, download speed, volume and frame rate will be checked and must pass above a minimum threshold before they can start a recording.

On the Identity Check module of the exam, a user will be asked to enter their forename and surname (this will be the student's name as they want it to appear on the certificate, defaults to the Customer's Name), Date of Birth and Gender. Once the Identity Check has been completed it will not be possible to change the name.

While recording, they will be able to see the sheet music (if applicable) and remaining time (if applicable) on the current module, and view their own recording (which may be expanded or collapsed to show the sheet music).

When the user presses Start on a module (either by starting a recording or starting a theory exam), the system will immediately log this action preventing the user from attempting to restart the module (e.g. by refreshing the page). To prevent accidental data loss, if the user tries to refresh the page whilst taking an exam module an alert will be displayed with a warning that refreshing the page will submit the current module (whether or not it has been finished).

If an error occurs, such as the user's internet drops out during recording, the user will not be able to restart the module and will need to use the Exam Problems form to contact the website administrator, where the administrator can reset the module progress at their discretion. This will apply to all recordings and theory exams, except for those modules where it is possible to restart the module.

6.7.2. Completed Exams

This view will show a list of exams that are pending grading sorted by date and expired exams that are past their due date. It will not be possible for the customer to view the content of Completed Exams.

6.7.3. Grades / Certificates

6.7.3.1. Grades List View

From this section, users will be able to view their marks and certificates from their exams which have been marked.

It will not be possible for a user to see their grades before they have been fully approved by a Super Examiner.

For each exam, the list will show:

- Exam Name
- Date Completed
- Date Graded
- Pass or Fail
- Link to view full results

6.7.3.2. Graded Exam Single View

On clicking a particular graded exam, the user will see:

- their grade and mark as a percentage
- A modal which opens when landing on the page (or, later, when clicking on the grade) showing a video relevant to the grade.
- a link to view/download a PDF of their certificate
- their completed marking sheet
- a link to open a PDF guide to the breakdown of the grade.

The page will link to a contact page, where a user can contact the website administrator to appeal.

6.8. Email notifications

Automated email notifications will be sent to the user at these times:

6.8.1. New order confirmation

Sent when customer completes purchase, including order details

6.8.2. Reset password

Sent when customer completes the forgotten password from their account

6.8.3. Exam reminder

Sent 3 days before an exam is due to expire from a user's account, to remind them to complete their exam, if they haven't done so already

6.8.4. Exam grades ready

Sent when a user's exam has been fully graded, directing them to their account to view their results.

7. Out of Scope

The following are currently considered out of scope of the project:

- Adding, selling and managing Courses and Course material
- Teacher accounts, teacher support and lessons
- Linked accounts (between parent and child)

8. Document Confirmation

What Happens Next

In order to proceed with the project, we will need your confirmation that you're happy with the functionality as outlined above. All we need for you to do is sign and return this document, then, we're good to go.

Your Confirmation

I can confirm that I (as named below) have the authority to act on behalf of Online Music Exams.

I understand that the above detail comprises the Functional Specification of my project, and this document supersedes any previous emails, phone calls, proposals or documentation provided. I also accept that additional functionality can be included but will be subject to additional costs.

The dotted line…

Name

....

Signed by and on behalf of
Online Music Exams

....

Date

....