

Mobile Web Application Development

Tutor-marked Assignment (FMA)

1. Introduction

The Mobile Web Application Development FMA accounts for 70% of the module total mark. It requires you to implement several aspects of functionality to the CityScoot App that you created for your MWA TMA.

2. App Functionality Requirements

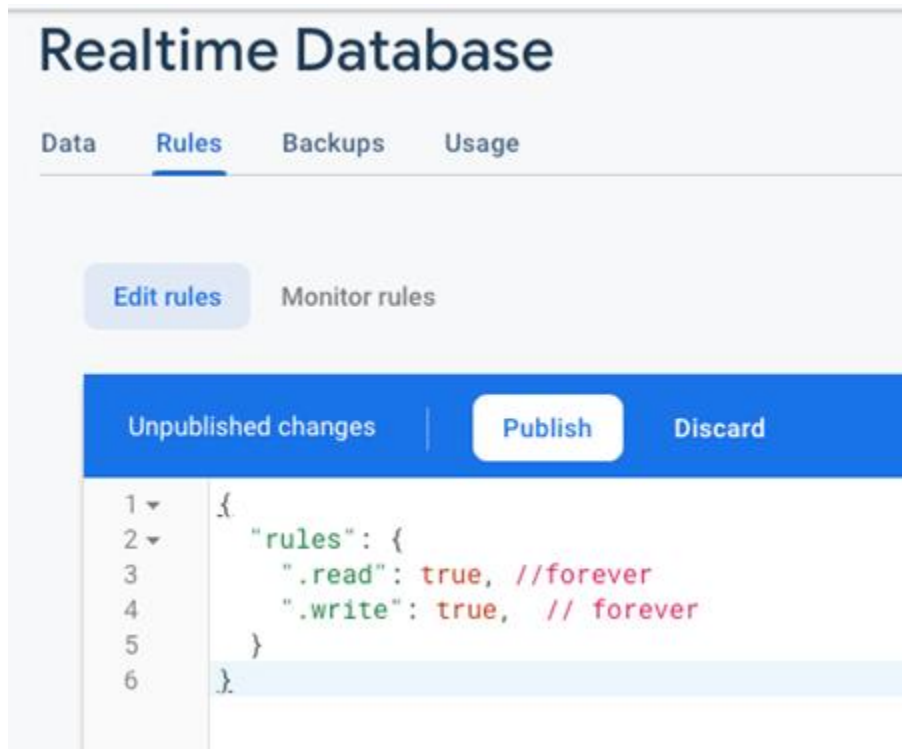
2.1. Tour Routes Data (20%)

- Create an appropriate and efficient JSON structure for tour routes data (*routes-data.xlsx*). Name your JSON file *routes.json*.
- Use JavaScript Ajax to read the tour routes data in the JSON file. Dynamically populate an HTML table on the tour routes page (*routes.html*) with *summary* information for each route (name, day, time, highlights).
- Include a *Details* button in the final cell of each table row. This button should open *route.html*, which will DYNAMICALLY load the full data for the selected tour route, including the GPS start and end points and the route placeholder image.

2.2 Guides Data (20%)

- Store guide data (*guides-data.xlsx*) in a [Firebase Realtime Database](#) (name, age, occupation, blue badge? and tours)
- Allow the user to retrieve and dynamically display guide data on the guides page (*guides.html*).
- The guide data should be ordered alphabetically by guide surname.
- You should exclude any guide from the guide list who does not have a blue badge.

Note that you must set your Realtime database rules as shown below; otherwise your tutor may not have access to it to mark it.



2.3 Favourites (20%)

- Allow users to add favourite tour routes and store them client side in local storage.
- Notify users with a Bootstrap modal window alert when a favourite has been added.
- Allow users to view favourite tour routes on a favourites page (*favourites.html*).
- Allow users to delete favourite tour routes previously added.
- Notify users with a Bootstrap modal window alert when a favourite has been deleted.

2.4 Maps (20%)

- Add a dynamically generated Google Map to *route.html*. The map should show
(a) The tour route start point (2) The tour route end point (3) The user's current GPS location.

2.5 Authentication (20%)

- Use Firebase Authentication to provide a login facility for users.
- Create a login page with a simple login form (username and password) that is accessible from the application home page.
- Allow non-signed up users to register for your app.
- Allow already signed up users to login to your app.
- Allow logged in users to log out from your app.
- Display a status message on your login page to show the current login status (i.e. You are currently logged in. You are not currently logged in).

2.6 Resources

Data resources are supplied for you to complete the FMA.

- Tour route data (*routes-data.xlsx*)
- Guide data (*guides-data.xlsx*)

Placeholder images are supplied for dynamic route and guide data.

3. Submission

a) Publish your completed App to the following URL. Failure to publish your page to the correct location will incur a notable deduction in your marks.

<http://titan.dcs.bbk.ac.uk/~username/mwafma/index.html>

b) Submit the following in a zip file via the FMA dropbox in Moodle (*username_mwa_fma_web_files.zip*).

- All of your App files
- A Word document containing a list of all the sources you have used to get ideas and help with your coding (*username_mwa_fma_sources.docx*). This must be concise and complete. Please also include the following in your word document:
 - A QR code for their site
 - URL of site
 - Student name
 - Student username

Note: If a required file is not submitted, or a file cannot be opened, or a file is in the wrong format, you will be awarded zero for the missing work.

4. General Guidelines

4.1 Getting feedback

You may submit a draft of your work by email to your tutor up to two weeks before the submission deadline.

Feedback on the marked FMA can be downloaded from Moodle and will normally be returned to you within 4 weeks of submission.

4.2 Backing up files

Always keep a back-up copy of all work submitted for assessment in case of unforeseen submission problems.

4.3 Plagiarism

Plagiarism, which is claiming the work of others as your own, is a serious offence and can result in your exclusion from all colleges of the University of London. You should be aware that we use a range of automated tools to spot potential plagiarism in spreadsheets, databases, program code and text documents. Providing you clearly reference work done by others that you have included in your FMA, you will not be penalised.

Tutors will be checking your work very carefully to make sure that it differs significantly from the class examples. Direct copying from the class examples, will be considered plagiarism.