Project Description

Assessment Description

The project will enable learners to design, implement, evaluate and deploy a SaaS application to a public Cloud platform, measuring all learning outcomes from module descriptor.

Assessment Overview

You are required to design, develop and deploy a Software as a Service Application using a web application framework and suitable design patterns. The application should be an information management system and be implemented using Rails and have the following functionality:

• different account types with relationships between accounts, you should model at least 1, one-to-many relationship between your models and create different user experiences based on roles.

• users should be able to add, edit and view records within the system

• the application should consume at least two external data feeds to enhance its core functionality, for example if the application was a news application you could consume information for multiple social media sites and create a unique experience through your application. This is typically referred to as a mashup application

• integrated search functionality should be included

• the application should be deployed to a suitable Platform as a Service. The deployed platform should be justified within the supporting documentation.

• the application should use continuous integration and delivery strategies

• the application should be constructed using suitable design patterns, external Gems and custom Ruby Gems

• the development of the project should follow a Test Driven Development strategy

Deliverables

You have to submit the following deliverables through Moodle:

- Source code of the application (the source code should contain comments to demonstrate your understanding of the code)

- Documentation for the project identifying the strategy that was implemented for the completion of the project. To document your project use the project report template available on Moodle.

In addition you are required to:

Demonstration: present your project on the scheduled presentation day. The schedule will be posted for the final week of term. These demonstrations will take place on Teams.

Requirements and Assessment Criteria

- **15%:** Documentation for the project identifying the strategy that was implemented to complete the project. Use the project report template available on Moodle named "Project Report Template".
- **10%:** Awarded for the successful deployment of your application to a suitable Cloud Platform as a Service. An analysis of the deployed application should be completed against the local version.
- **10%:** The User Interface/ Views of your application. You should demonstrate effective use of the Rails framework for example using partials, layouts, bootstrap…etc.
- **45%:** Awarded for the application requirements implementation
  - 36%: for the required functionalities
    - 6%: The database architecture must be created using rails and running database migrations model (i.e. you cannot import a database into the application). Evidence must exist for validations, relationships between multiple models…etc.
    - 30%: Main Functionality:
      - Allows a user to add a record,
      - offers a user a profile (managed through a separate model). The profile should track some user engagement
      - You should demonstrate effective use of Cookies and Sessions

- consume two external sources of data
- Use multiple external GEMS

- 9%: for documented use of a Test Driven Development process followed through your project to highlight Unit, Functional and Integration testing throughout the lifespan of the project.

- **5%:** for implementing two appropriate design patterns in your application

- **5%:** Building of suitable custom GEM incorporated into your project that performs a key part of the functionality, for example a GEM showing the time or a simple conditional statement will receive a mark of zero

- **10%:** for the documented use of continuous integration and delivery strategies