**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Code Institute Diploma in Software Development**

**Portfolio Guidelines**

The **Code Institute Diploma in Software Development** is based on completion of three project assignments, one to be completed at the conclusion of each section of learning. Each project assignment will demand demonstration of the required knowledge and competency for the topics included within that Section.

The three submitted projects will reflect the topics covered in **Code Institute Diploma in Software Development**, Syllabus Version 1.0, and will combine to provide a final portfolio of each Student’s work at the conclusion of the programme.

**Students are required to successfully complete all 3 projects (achieving a minimum pass grade of 50% in each case) in order to be awarded the certification.**

**1. Project descriptions**

**Project 1**

Students are required to create a web-based Front End interface to display appropriate information for either:

* A Band or Music Artist site
* Students own chosen topic – to be approved by mentor

Students should use the front end technologies learned in this section specifically HTML5, CSS3, JavaScript and AngularJS. Students should conduct and document testing in a variety of different environments.

The site should meet the topic brief demonstrating optimal structure and performance, efficient and correct use of code and be visually impactful using responsive and user experience design principles.

**Project 2**

Students are required to create a web-based Data Dashboard demonstrating their skills in using the Back End Technologies covered in this section specifically: MongoDB, Python, D3.Js, DC.Js, Crossfilter.js, Queue.js, JSON, Flask Framework and CSV Data.

The site should demonstrate data visualisation, manipulation and integration of data from various sources using a variety of chart types (bar, pie) and applying responsive design. Appropriate unit testing and debugging processes should be completed and documented.

**Project 3**

Students are required to create a Full Stack Web-based application to act as a Social Entrepreneurship hub. They should demonstrate their skills in planning and managing the project from end to end, documenting an appropriate test phase. The site should be built on and deployed to a Linux environment using Django full stack framework, Python and SQLite.

The site should require users to make credit card payments to join the site, deploying user registration, authentication and authorisation. Membership status should permit the sharing of ideas via forums and blogs, and allow users to work collaboratively using polls. Appropriate integration testing should be completed and documented.

See Appendix 1 below for a breakdown of the marking scheme to be applied to all three projects.

**2. Project Grades and Marking Scheme**

Project work will be assessed after the final submission deadline and component projects will contribute to the overall grade as follows:

Project 1 - 20%

Project 2 - 40%

Project 3 - 40%

Students must score a minimum pass grade of 50% in each project in order to achieve the certification standard. Final Certification grades will be awarded as follows:

|  |  |
| --- | --- |
| **Outcome** | **Mark** |
| **Fail** | 49% or less |
| **Pass** | 50-59% |
| **Merit** | 60-69% |
| **Distinction** | 70-100% |

**3. Submission procedure**

Students will be required to submit final versions of their project work by the published Portfolio Deadline Submission date for their class group, no alterations should be made following that date. Project work will only be accepted by uploading it to the student’s private repository on GitHub as directed by the Programme Director. In order to protect the submitted project work from plagiarism collaborator status on the student’s private GitHub repository will be exclusive to Code Institute.

Online students will be advised of upcoming pre-scheduled submission dates at which they may submit a Portfolio for assessment.

**4.** **Marking Criteria**

Marks will accrue for the component parts of each project as per the following breakdown:

**Project 1**

|  |  |  |
| --- | --- | --- |
| **Category and Key Proficiencies** | **Marks Allocated** | **Category Value** |
| **Correct use of Code**   1. HTML5 2. CSS3 3. JavaScript Libraries | 20 20 20 | 60 |
| **Usability Performance**   1. Information Display 2. Ease of use | 20 20 | 40 |
| **Structure and Layout**   1. Responsive Design 2. Navigation | 20 20 | 40 |
| **Visual Impact**   1. Image Treatment 2. Non-image Content | 20 20 | 40 |
| **Documentation**  **Hosting** | 10  10 | 20 |
| **Total Score – Project 1** |  | **200** |

**Project 2**

|  |  |  |
| --- | --- | --- |
| **Category and Key Proficiencies** | **Marks Allocated** | **Category Value** |
| **Quality of Coding**   1. Python 2. Crossfilter.js 3. DC.js 4. Queue.js | 40  40  40  40 | 160 |
| **User Interface**   1. Data Visualisation 2. Responsive styling using bootstrap 3. Usability | 30  30  20 | 80 |
| **Integration of Data**  MongoDB |  | 60 |
| **Frameworks**  Flask Framework |  | 40 |
| **Deployment** |  | 40 |
| **Testing / Debugging Procedure**  Unit Test |  | 10 |
| **Documentation** |  | 10 |
| **Total Score – Project 2** |  | **400** |

**Project 3**

|  |  |  |
| --- | --- | --- |
| **Category and Key Proficiencies** | **Marks Allocated** | **Category Value** |
| **Use of technologies**   1. Django 2. Python 3. SQLite | 30  30  30 | 90 |
| **Operational Performance**   1. Integration of modules   2. e-commerce | 70  30 | 100 |
| **Application Features:**   1. Templates 2. Blog 3. Forums 4. Polling | 25  25  25  25 | 100 |
| **Authentication and Security** |  | 60 |
| **Integration Testing Procedure** |  | 30 |
| **Documentation** |  | 20 |
| **Total Score – Project 3** |  | **400** |

Final scores will be divided by 10 to yield a percentage grade.