***1. Project Overview***

**Project Title: Scholar Nest - Online Learning Platform**

**Project Description:**

Scholar Nest is a concept of a collaborative learning environment available to students and teachers over the Internet. It will enable easy management of the course, various tests and quizzes, and communication between the students and instructors. There will be 7 web pages in the system and front-end development of the application will be done using HTML5, CSS3, and JavaScript. Sustaining the back end will involve the use of a MySQL database with four tables and the data will be managed using PHP.

***2. Project Justification***

**Real-World Problem/Opportunity:**

Since more and more students are considering enrolling in online education, there is a great need to have a strong system to address several functions of education. Current approaches frequently contain missing capabilities or interface friendliness, causing a chock-full state for the users.

**Proposed Solution:**

The problems faced can be resolved by Scholar Nest which contains features for course management, tracking student progress, tests, quizzes and engagement tools. This shall help in the upgrade of the learning process since the platform will assist the educators in the easy management of their courses as well as assist the students in easy access to education materials.

***3. Development Approach***

**Software Development Methodology:**

Proposing the kind of methodologies, we have chosen Agile as the most appropriate one for this project. Since agile development entails working in cycles with built-in feedback on the progress, it creates an environment that can easily deal with the dynamism of an online learning platform environment regularly required due to the ever-evolving needs of the users.

**Chosen Methodology: Agile**

Justification: As such, agile methodology is suitable for this project since it allows flexibility and enhancement of the process. It helps the development team to adapt easily to different changes hence making sure that the platform is updated to accommodate the changes that are suggested by the users and advances in technology. It is advantageous in this approach that user experience and functionality are at the core of a project like Scholar Nest.

***4. Design and Implementation Plan***

**Design Process:**

The design process will involve several stages:  
**1.** **User Requirements Gathering:** Some of the activities that can be recommended include Surveying potential users / interning them during the initial consultation.  
**2.** **Wireframing:** Develop Elementary sketches of each of them to have a better presentation and understanding of the site layout.  
**3.** **Prototyping:** Build clickable prototypes to view the paths the users are to follow as well as the look of the interface.  
**4.** **Final Design:** Integrate the second and third prototyping to make the final design of the model.

**Platforms and Tools:**

**Front-End:**

HTML5

CSS3

JavaScript

**Back-End:**

PHP

MySQL

**Version Control: Git**

***5. Database Design***

**Database Structure:**

The database will consist of the following tables:  
**1. Users:**  
o Fields: user\_id, username, password, email, role (Student/Teacher)  
o Description: Can store users’ details as well as their login credentials.  
**2. Courses:**  
o Fields: course\_id, course\_name, description, teacher\_id  
o Description: This table is used to store details of courses being offered and the instructors attached to them.  
**3. Enrolments:**  
o Fields: Enrolment\_ID, user ID, Course ID, enrolment date  
o Description: Record of students about the courses.  
**4. Assessments:**  
o Fields: assessment\_id, course\_id, title, short description, due  
o Description: It retrieves information about the assessments concerning the courses offered across the centre.

***6. Risk Management Plan***

**Identified Risks:**

**• The first risk:** It is the inadequate security of data that will be used in the analysis The following are the possible implications of this risk:  
o Mitigation Strategy: Use proper security settings such as the use of SSL encryption and always carry out a security check.  
**• Risk 2:** System Downtime  
o Mitigation Strategy: Choose a stable web host with backup options and routines and attend to the provider’s equipment and regular checks.

***7. Service and Change Management Plan***

**Service Management:**

• Maintenance: Updates and bug checks will also be provided severally.  
• Support: Ensure that the clients have access to a helpdesk as well as other forms of support over the Internet.

**Change Management:**

• Change Requests: The formulation of the change control procedure shall include how change requests should be submitted and how all change requests should be reviewed.  
• Approval Process: As much as possible, changes would have to be made with a project manager approving the changes before they are carried out.

***8. Conclusion***

Due to the increasing development of e-learning Scholar Nest is aimed at fulfilling the gap of the efficient and friendly online platform. By integrating the use of the Agile methodology in the execution of the plan, the project will be fitted and will succeed in meeting user needs hence producing a quality product that will improve the learning process of the students and the instructors.

***9. Project Repository Link***

[Link to the project's GitHub repository for version control and collaboration.]