**Test Plan for Student Registration System**

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**1. Introduction**

This test plan outlines the testing strategy for the Student Registration System with a Payment Module developed in PHP. The goal is to ensure that the application functions correctly, meets the specified requirements, and provides a seamless user experience.

**2. Objectives**

* Validate the functionality of the student registration process.
* Ensure the payment module operates correctly and securely.
* Confirm that the system is user-friendly and meets performance standards.
* Identify and resolve any defects before deployment.

**3.Testing objectives Scope**

**In-Scope**

* User registration and login
* Course selection and registration
* Payment processing (credit card, stripe)
* Confirmation and notification system
* User interface and usability testing

**Out-of-Scope**

* Integration with external systems (e.g., databases)
* Performance testing under extreme load

**4. Testing Types**

* **Manual Testing**: To verify usability and functionality.
* **Automated Testing**: For regression testing of critical functionalities.
* **Security Testing**: To ensure data protection and payment security.
* **Performance Testing**: To evaluate system load handling.

**5,** Levels of Testing

* **Unit Testing**: Validate individual components (e.g., form validation, Stripe payment processing).
* **Integration Testing**: Test interactions between modules (e.g., registration and Stripe payment).
* **System Testing:** End-to-end testing of the entire application.
* **Acceptance Testing**: Verify that the system meets business requirements.

**5. Test Environment**

* **Server**: PHP server (e.g., Apache, Nginx)
* **Database**: MySQL
* **Browser**: Chrome, Firefox, Safari
* **Testing Tools**: Selenium, JMeter, Postman, etc.

**6. Test Cases**

| **Test Case ID** | **Test Description** | **Expected Result** | **Status** |
| --- | --- | --- | --- |
| TC001 | User registration with valid data | User registered successfully | Pending |
| TC002 | User login with valid credentials | User logged in successfully | Pending |
| TC003 | Course selection and registration | Course registered successfully | Pending |
| TC004 | Payment processing with valid card details | Payment completed successfully | Pending |
| TC005 | Payment processing with invalid card details | Error message displayed | Pending |
| TC006 | Approval of pending requests by teacher | Approval message sent to student | Pending |
| TC007 | User logout functionality | User logged out successfully | Pending |
|  |  |  |  |
| TC008 | Security test for payment module | No vulnerabilities found | Pending |
|  |  |  |  |

**7. Roles and Responsibilities**

* **Test Manager**: Oversee testing processes and resources.
* **Testers**: Execute test cases and report bugs.
* **Developers**: Address reported issues and bugs.

**8. Schedule**

* **Test Planning**: [
* **Test Execution**:
* **Bug Fixing**:
* **Final Review**:

**9. Risk Management**

* **Risk**: Delays in development may affect testing timelines.
* **Mitigation**: Regular communication with the development team to address issues early.

**10. Conclusion**

This test plan serves as a blueprint for the testing of the Student Registration System with a Payment Module. The outlined approach ensures thorough testing, which is essential for delivering a reliable and user-friendly application.