E-Commerce Website for Automobile Spare Parts

1. Initial Planning Phase:

Activities:

Identify high-level requirements: User registration, product catalog, shopping cart, payment gateway integration.

Assess risks: Technical feasibility, integration with Razorpay, user interface design.

Develop initial project plan and timeline.

Output:

Requirement specification document.

Risk assessment report.

Initial project plan.

2. First Iteration (First Spiral):

Planning:

Activities:

Detailed requirements gathering for user registration and login.

Identify risks related to user data security and authentication mechanisms.

Output:

Detailed requirement document for user registration and login.

Risk management plan for security and authentication.

Risk Analysis:

Activities:

Analyze risks of data breaches, unauthorized access.

Develop prototype for user registration and login.

Output:

Prototype of user registration and login.

Risk mitigation strategies for security.

Engineering:

Activities:

Design user registration and login modules.

Implement and test the user registration and login functionalities.

Output:

Working user registration and login feature.

Unit test results.

Evaluation:

Activities:

Review and validate user registration and login functionalities with stakeholders.

Gather feedback and incorporate into planning for next iteration.

Output:

Updated requirements based on feedback.

Plan for next iteration focusing on product catalog.

3. Second Iteration (Second Spiral):

Planning:

Activities:

Detailed requirements gathering for product catalog and inventory management.

Identify risks related to database design, search functionality.

Output:

Detailed requirement document for product catalog.

Risk management plan for database and search functionality.

Risk Analysis:

Activities:

Analyze risks of database performance, search accuracy.

Develop prototype for product catalog and search functionality.

Output:

Prototype of product catalog and search.

Risk mitigation strategies for database and search.

Engineering:

Activities:

Design product catalog and inventory management system.

Implement and test the product catalog and search functionalities.

Output:

Working product catalog and search feature.

Unit test results.

Evaluation:

Activities:

Review and validate product catalog and search functionalities with stakeholders.

Gather feedback and incorporate into planning for next iteration.

Output:

Updated requirements based on feedback.

Plan for next iteration focusing on shopping cart and payment integration.

4. Subsequent Iterations:

Repeat the process for additional features like shopping cart, payment gateway integration, order management, etc., each time going through planning, risk analysis, engineering, and evaluation phases.