**Software Engineering**

**Spring 2024**

**Assignment 1**

**Due Date: 11 March 2024**

**Task 1)** Mention the Software Process Model that will be used in the development of your Software. Discuss the reasons for using the process model and why is it most suitable to your project?   
  
 In order to develop our project "Janwar", we have decided to use the Agile Scrum process model since it's iterative and incremental development well suits the dynamic nature of our project (an online marketplace). One of the main benefits of Scrum process model is that it emphasis on flexibility to changing requirements which ensures that the project can adapt to evolving user and market needs. Moreover, the customer-centric approach of Agile Scrum promotes continuous feedback and collaboration, which ensures that the final product we produce would meet our user’s expectations. The method's risk reducing features and adaptability to market changes make it the most suitable choice for a multifaceted project like ours where frequent updates and responsiveness to user feedback are necessary for success.

**Task 2)** Write at least 5 functional and 3 non-functional requirements related to your project.

**Functional Requirements:**

1. **User Registration and Profiles:**
   * Users should be able to create accounts with detailed profiles to manage their listings, preferences, and interactions on the platform.
2. **Pet Market and Adoption Portal:**
   * The system must support the listing, buying, and selling of pets, covering various species and breeds. Additionally, there should be a dedicated portal for rescue organizations and individuals to list pets for adoption.
3. **Accessories Marketplace:**
   * A separate section for buying and selling pet accessories must be available, providing users with a comprehensive marketplace for all their pet-related needs.
4. **Chat Room for Pet Lovers:**
   * The platform should include chat rooms to facilitate discussions, advice-sharing, and community building among pet enthusiasts, creating a vibrant and engaging user community.
5. **Secure Transactions:**
   * Integration of secure payment gateways is essential to ensure safe and reliable transactions between users for the purchase of pets, accessories, and other services.

**Non Functional Requirements**

1. **Performance:**
   * The platform must load pages and process user requests within 3 seconds, ensuring a swift and responsive experience, even during peak usage periods.
2. **Security:**
   * Users passwords need to be stored encrypted, using strong algorithms that comply by the industry’s standard. This is to protect the users against unauthorized access.
3. **User friendly:**
   * The user interface must offer an instinctive and quick response, ensuring a smooth and effortless user experience. Additionally, it should be designed to enhance user interaction, fostering an environment that encourages user engagement and satisfaction.

**Task 3)** Mention different roles that each member will play in your group project.

**Team Member 1 - Muhammad Hasnain Fatmi (21L-1773):**

* **Scrum Master:**
  + Facilitates team communication and organization.
  + Coordinate project activities, timelines, and deliverables.
* **Developer:**
  + Contribute to core features development.
  + Assists both Frontend and Backend Developers.

**Team Member 2 - Umair Bin Asim (21L-1847):**

* **Designer, Database Administrator, Developer:**
  + Communicates system design within the team.
  + Develops core functionalities for system scalability.
  + Designs and maintains database.

**Team Member 3 - Muhammad Mehdy Hasnain (21L-1784):**

* **UI/UX Designer, Tester, Developer:**
  + Implements user interface for seamless experience.
  + Ensure visually appealing design.
  + Contributes to core functionalities development and testing.

This distribution of roles leverages each team member's expertise to contribute effectively to the development of our project.