Name of Student : Yash Mirashi			
Roll Number : 26		**LAB Assignment Number:** 02	
Title of LAB Assignment : Requirement gathering			
DOP : 16/01/2024		**DOS :** 27/01/2024	
CO Mapped : CO2	**PO Mapped:** PO3, PO5, PO7, PO12	**Faculty Signature:**	**Marks :**

Aim: Requirement gathering

Theory:

Project Name: Companio - Uniting Pet Enthusiasts in a Digital Community

Project Description:

Companio is an innovative Android application designed to serve as a global hub for pet enthusiasts, regardless of their experience level in pet ownership. More than just an app, Companio fosters connections, promotes adoption, and creates a supportive community centered around the well-being of our beloved companions.

Project Proposal:

Developing an Android application to create an inclusive platform for pet enthusiasts, enabling seamless sharing of pet-related information, photos, and videos while incorporating a map view feature for locating animals up for adoption.

End-Users:

Individuals who have a passion for pets, ranging from seasoned pet owners to newcomers interested in adopting.

Project Objectives:

The project's primary objective is to create an inclusive and user-friendly Android application
that serves as a comprehensive platform for pet owners. This application aims to:
● Enable seamless sharing of pet-related information, including photos and videos, fostering a community of pet lovers.
● Incorporate a map view feature to facilitate the location-based identification of animals available for adoption, encouraging pet adoption and responsible pet ownership.
● Implement a real-time notification system to alert users within a 5km distance of nearby pets in need of adoption, promoting timely and accessible adoption opportunities.

Tools:

- Android studio
- Flutter SDK
- Android SDK
- JDK
- Android Emulator

Project Requirements:

Functional Requirements:

User Registration and Profile:
Users should be able to create accounts with basic information.
A comprehensive user profile with options to add pet details, preferences, and adoption history.

Community Features:
Forums and discussion boards for users to engage in conversations on pet-related topics.
Chat groups for real-time interactions between members.
Ability to share photos, stories, and experiences within the community.

Adoption Section:
Profiles for pets available for adoption, including details on their background, health, and behavior.
Integration with shelters and rescue organizations to showcase adoptable pets.
Filters and search functionality for users to find pets based on preferences.

Connection and Networking:
Friend request and connection features to build a network within the community.
Events calendar for organizing and discovering pet-centric meet-ups, workshops, and activities.

Educational Resources:
Articles, tutorials, and expert advice on pet care, health, training, and responsible ownership.
Integration with external resources or partnerships for a comprehensive educational experience.

Notification System:
Push notifications for updates on forum discussions, events, and adoption opportunities.
Personalized alerts for friend requests, messages, and community activities.

Non-Functional Requirements:

Performance:
The app should have low-latency response times, with actions like posting, commenting, and loading content taking place seamlessly.
It should support a scalable number of users and data, ensuring performance remains optimal even as the user base grows.

Reliability:
The system should be available 24/7, with minimal downtime for maintenance.
Reliable data storage and backup mechanisms to prevent data loss or corruption.

Scalability:
The application should be designed to handle an increasing number of users, posts, and community interactions without significant degradation in performance.

Security:
Robust user authentication and authorization mechanisms to safeguard user data.
Encryption of sensitive data during transmission and storage.
Regular security audits and updates to address potential vulnerabilities.

Usability:
The user interface should be intuitive, with clear navigation and an aesthetically pleasing design.
Accessibility features to ensure the app is usable by individuals with disabilities.

Compatibility:
The app should be compatible with a range of Android devices and operating system versions.
Compatibility with popular web browsers for users who may access the platform through a web interface.

Feasibility Study:

1. Technical Feasibility:
Platform Compatibility: The project leverages the Android platform, ensuring compatibility with a vast user base.
Scalability: The technology stack and infrastructure are chosen to support scalability as the user community grows.
Data Security: Robust security measures are implemented to protect user data, ensuring a secure environment.

2. Economic Feasibility:
Cost-Benefit Analysis: Initial development and ongoing maintenance costs are offset by potential benefits, including user engagement, partnerships, and potential monetization avenues.
Revenue Streams: Exploration of revenue streams through partnerships, premium features, and sponsored content.

3. Operational Feasibility:
User Adoption: With a focus on user-friendliness and inclusivity, Companio is designed to appeal to a broad audience of pet enthusiasts.
Collaboration with Shelters: Establishing and maintaining partnerships with shelters contributes to the operational success of promoting pet adoption.

4. Legal and Regulatory Feasibility:
Data Protection Compliance: Stringent adherence to data protection regulations ensures legal compliance and user trust.
Collaboration Agreements: Legal agreements with shelters and organizations for pet adoption and event collaborations are crucial.

5. Schedule Feasibility:
Timely Development: A well-defined development roadmap with achievable milestones ensures timely delivery of the application.
Iterative Development: Agile development methodologies allow for flexibility and adaptation during the development process.

6. Social and Environmental Feasibility:
Social Impact: Facilitating pet adoption and fostering a sense of community around pet care aligns with social responsibility.
Environmental Impact: The digital nature of the application minimizes environmental impact compared to traditional community-building methods.

How Requirements Are Gathered:

Requirements will be gathered through a combination of:

Stakeholder Interviews:
Conducting interviews with key stakeholders, including potential users, pet owners, shelters, and rescue organizations, to understand their needs, expectations, and pain points.

Surveys and Questionnaires:
Distributing surveys or questionnaires to a broader audience to gather quantitative data on preferences, interests, and user demographics related to pets and community engagement.

Market Research:
Analyzing existing pet-related apps and communities to identify successful features, gaps in functionality, and areas for improvement.

Collaboration with Shelters:
Engaging directly with shelters, rescue organizations, and pet adoption agencies to understand their processes, requirements, and the information they need to showcase adoptable pets.

Expert Consultation:
Seeking input from veterinarians, pet behaviorists, and other experts in the field to ensure that educational resources and information provided in the app are accurate and beneficial.

Regulatory Compliance Research:
Conducting research on data protection regulations and legal requirements related to pet adoption and community platforms to ensure the project complies with applicable laws.

User Stories and Use Cases:
Developing user stories and use cases to capture specific scenarios and interactions that users would expect from the application, aiding in the creation of detailed functional requirements.