PUCIT
Punjab University College of Information Technology

Final Project Proposal

Version 1.0

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1. Introduction

With the fast-paced and everyday developing world, we have excelled in almost every field related to humans. Everyone is pushing the limits to facilitate humanity. In this race of serving humanity, we have, somehow, overlooked animals and their facilities. Being human poses some responsibilities to us that also includes a duty to protect the living creatures around us. We don't even have sufficient time for our pets, from our busy and social life. This project is specially chosen to provide a simple and easy approach to avail pet-related services to pet owners so that their pets can get what they need at the right time.

1.1 Project Title

PETx

1.2 Project Overview Statement

As the name suggests, the project revolves around animal care and services related to them. Since everyone is so engaged in their lives, no one finds enough time to research their pet, which doctor is better, and where to find the best quality pet products. In case, some animal is ever struck in a do-or-die situation, no one knows how to help the poor soul. Thus keeping all this in mind, PETx will provide all these services with ease so that pet owners can serve their pets with peace of mind.

1.3 Project Overview Statement

Project Title:
PETx

Group Leader: **Hassan Ahmad Sarfraz**

Project Members:

Name	Registration #	Email Address	Signature
ATA UL MOHSIN	BSEF19M031	bsef19m031@pucit.edu.pk	AUMohsin
HASSAN AHMAD SARFRAZ	BSEF19M033	bsef19m033@pucit.edu.pk	HassanAhmad
MUHAMMAD SAAD	BSEF19M037	bsef19m037@pucit.edu.pk	SaadAmjad
MUHAMMAD SALEH BUTT	BSEF19M047	bsef19m047@pucit.edu.pk	MSaleh

Project Goal:
To create a safe space for pets in the community by providing their owners with multiple pet-related services on a single platform. Also encouraging users to use his crypto for payments.

Objectives:

Sr.#	
1	Develop a rescue system for pets
2	Community building through a social interaction corner for pet owners.
3	Add online veterinary appointment system
4	Add blockchain-based payment systems

Project Success criteria:
Develop an all-in-one place for pet-related services so that pet owners can find the best for their pets with minimum effort on a single platform.

Assumptions, Risks, and Obstacles:

- It is assumed that there are some service providers working already in the market. We will be developing a platform to onboard them and unite their services on a single web app.
- There is a risk that providers do not provide the promised service quality which can result in a dent in our reputation and loss of customers as well.
- Limited tech knowledge in hand.

Organization Address (if any):

Type of project: Research

Target End users: Pet Owners, Pet Rescuers, Doctors

Development Technology: Object Oriented

Platform: Web-based

Suggested Project Supervisor: **Natalia Chaudhary**

Approved By:

Date: Nov 4, 2022

1.4 Project Goals & Objectives

Goals:

1) To help pet owners take the best care of their pets.
2) To make it easy for people to adopt pets by providing ease in services.
3) To reduce the number of animal deaths by providing immediate first aid services.
4) To help people show affection to injured animals by using our rescue service.
5) To make revenue by making it easy for humans to treat animals with kindness.

Objectives:

To achieve the above goals we are determined to:

1) Develop a rescue system for pets
2) Add online veterinary appointment system
3) Community building through a social interaction corner for pet owners.
4) Add blockchain-based payment systems

1.5 High-level system components

1) Login / SignUp: Leads the user to Landing Page
2) Rescue Service: No login required, Immediate contact to rescue team
3) Appointment Section: Browse through doctors list, see reviews and choose from available appointment times.
4) Blog page: Users can share their insights, findings, research, experiences, or other information with each other.
5) Payment: Blockchain-based secure payment system

1.6 List of optional functional units

1) Online store: Where users can buy all kinds of pet accessories, food, and medicines.
2) Shelter Home: Where you can submit some stray / orphan animals, adopt a pet, or might abandon your pet as well.

1.7 Exclusions

Functionalities: Due to limited time, we might not be able to practically implement optional functionalities.

Performance: Due to a very limited budget, we would not be able to buy subscriptions for an excellent host thus performance can be compromised.

Traffic: We will also face traffic limitations that might not be able to handle a large number of online users at once.

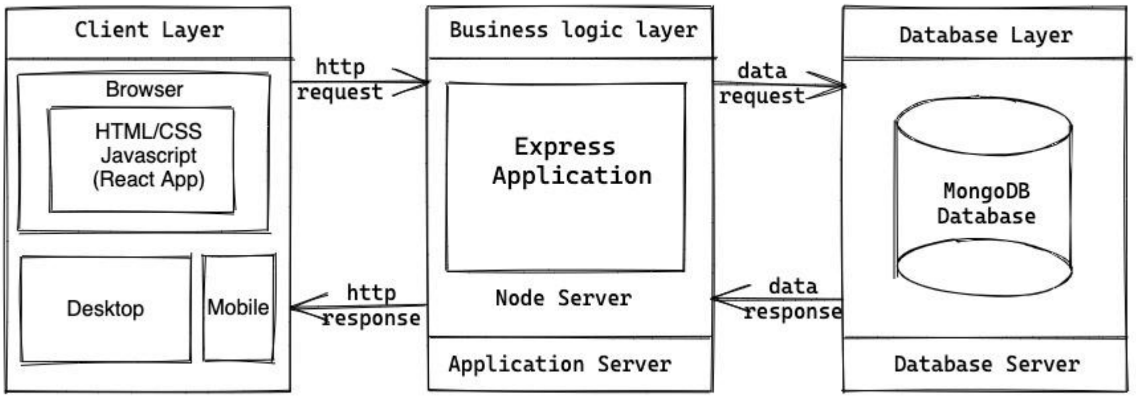
Domain name: Domain name has a key role in attracting an audience. Due the limited budget, we would be buying any popular domain like .com etc, instead, we will be any less attractive one that would fit in our budget.

1.8 Application Architecture

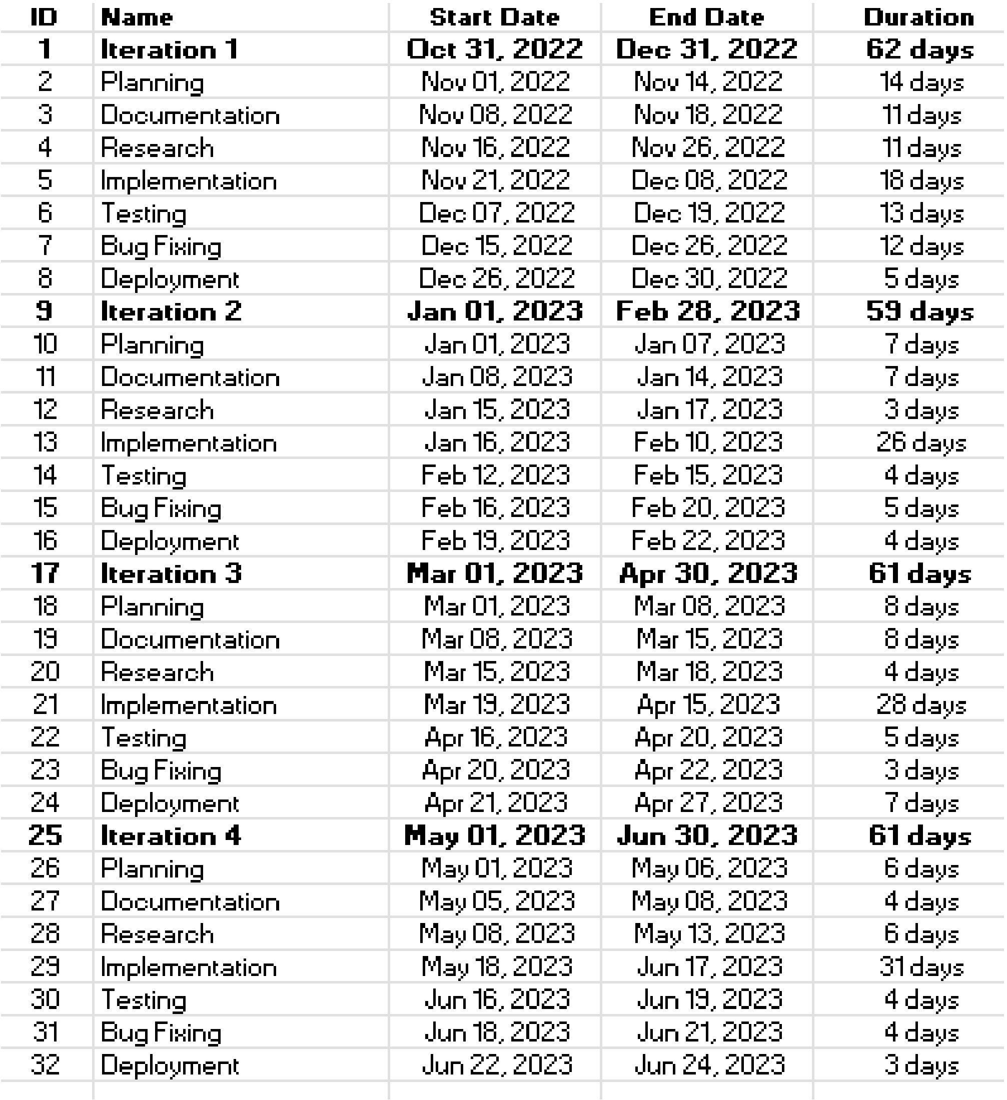
We will be using Three-Tier architecture for this project. These 3 layers will be as

1) Frontend Tier
2) Application Tier
3) Database Tier

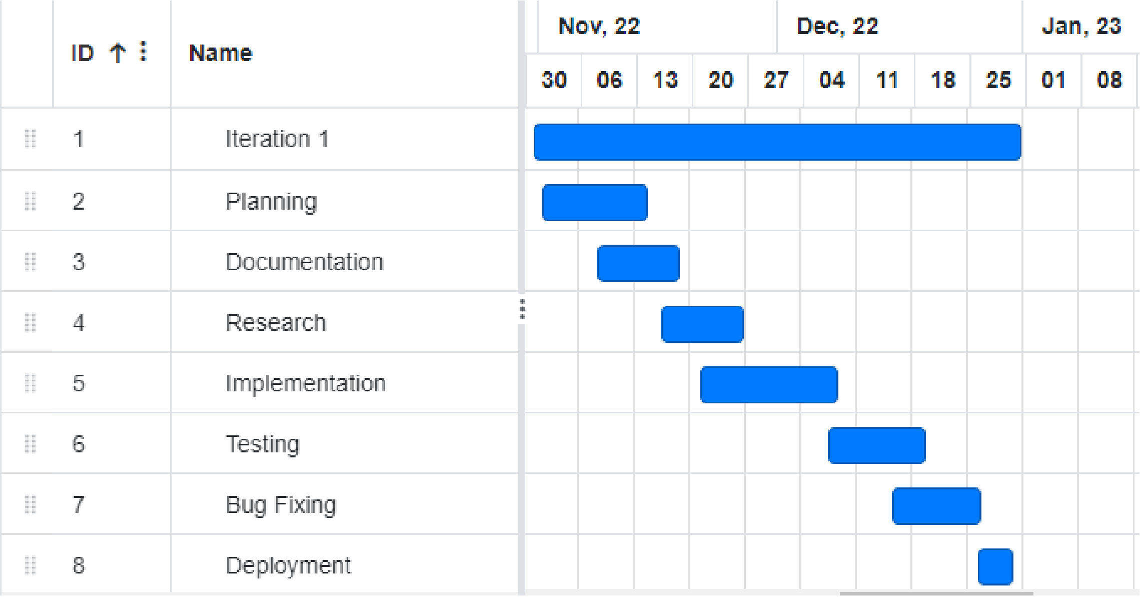
Frontend will be handled using HTML5, CSS3, ES6, and ReactJS. The application tier will be implemented using NodeJS and ExpressJS. While the last layer of the database will be implemented using MongoDB.



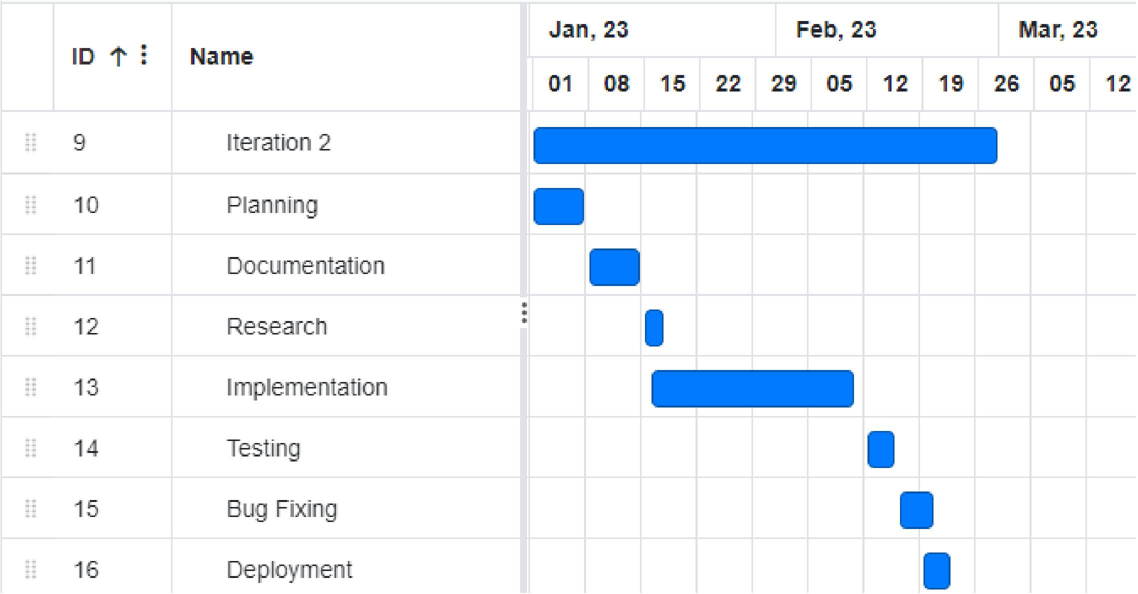
1.9 Gantt chart



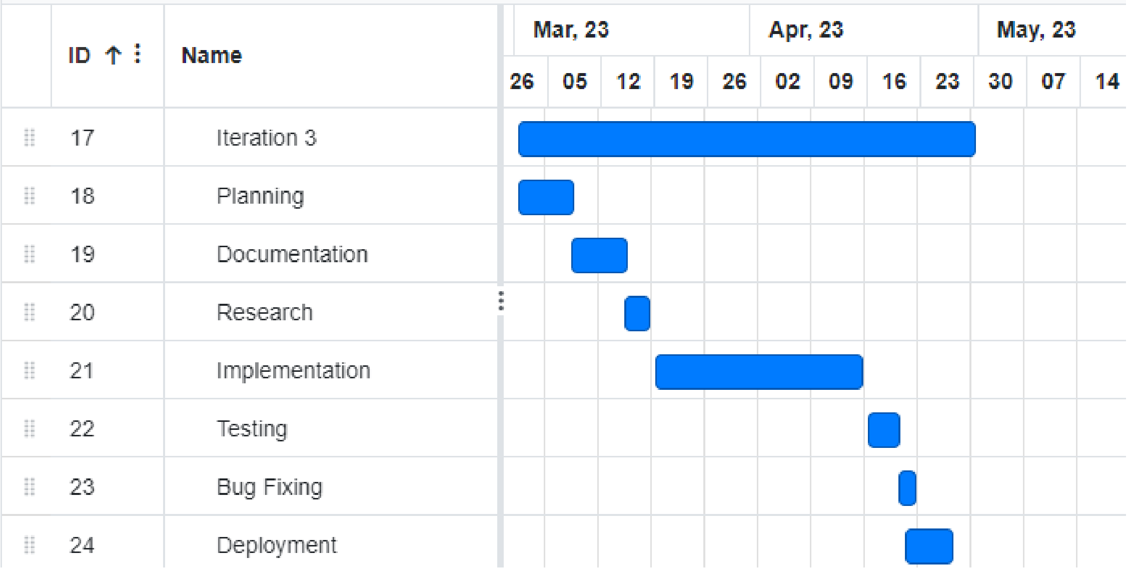
ID	Name	Start Date	End Date	Duration
1	**Iteration 1**	**Oct 31, 2022**	**Dec 31, 2022**	**62 days**
2	Planning	Nov 01, 2022	Nov 14, 2022	14 days
3	Documentation	Nov 08, 2022	Nov 18, 2022	11 days
4	Research	Nov 16, 2022	Nov 26, 2022	11 days
5	Implementation	Nov 21, 2022	Dec 08, 2022	18 days
6	Testing	Dec 07, 2022	Dec 19, 2022	13 days
7	Bug Fixing	Dec 15, 2022	Dec 26, 2022	12 days
8	Deployment	Dec 26, 2022	Dec 30, 2022	5 days
9	**Iteration 2**	**Jan 01, 2023**	**Feb 28, 2023**	**59 days**
10	Planning	Jan 01, 2023	Jan 07, 2023	7 days
11	Documentation	Jan 08, 2023	Jan 14, 2023	7 days
12	Research	Jan 15, 2023	Jan 17, 2023	3 days
13	Implementation	Jan 16, 2023	Feb 10, 2023	26 days
14	Testing	Feb 12, 2023	Feb 15, 2023	4 days
15	Bug Fixing	Feb 16, 2023	Feb 20, 2023	5 days
16	Deployment	Feb 19, 2023	Feb 22, 2023	4 days
17	**Iteration 3**	**Mar 01, 2023**	**Apr 30, 2023**	**61 days**
18	Planning	Mar 01, 2023	Mar 08, 2023	8 days
19	Documentation	Mar 08, 2023	Mar 15, 2023	8 days
20	Research	Mar 15, 2023	Mar 18, 2023	4 days
21	Implementation	Mar 19, 2023	Apr 15, 2023	28 days
22	Testing	Apr 16, 2023	Apr 20, 2023	5 days
23	Bug Fixing	Apr 20, 2023	Apr 22, 2023	3 days
24	Deployment	Apr 21, 2023	Apr 27, 2023	7 days
25	**Iteration 4**	**May 01, 2023**	**Jun 30, 2023**	**61 days**
26	Planning	May 01, 2023	May 06, 2023	6 days
27	Documentation	May 05, 2023	May 08, 2023	4 days
28	Research	May 08, 2023	May 13, 2023	6 days
29	Implementation	May 18, 2023	Jun 17, 2023	31 days
30	Testing	Jun 16, 2023	Jun 19, 2023	4 days
31	Bug Fixing	Jun 18, 2023	Jun 21, 2023	4 days
32	Deployment	Jun 22, 2023	Jun 24, 2023	3 days



ID	Name
1	Iteration 1
2	Planning
3	Documentation
4	Research
5	Implementation
6	Testing
7	Bug Fixing
8	Deployment



ID	Name
9	Iteration 2
10	Planning
11	Documentation
12	Research
13	Implementation
14	Testing
15	Bug Fixing
16	Deployment



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17	Iteration 3
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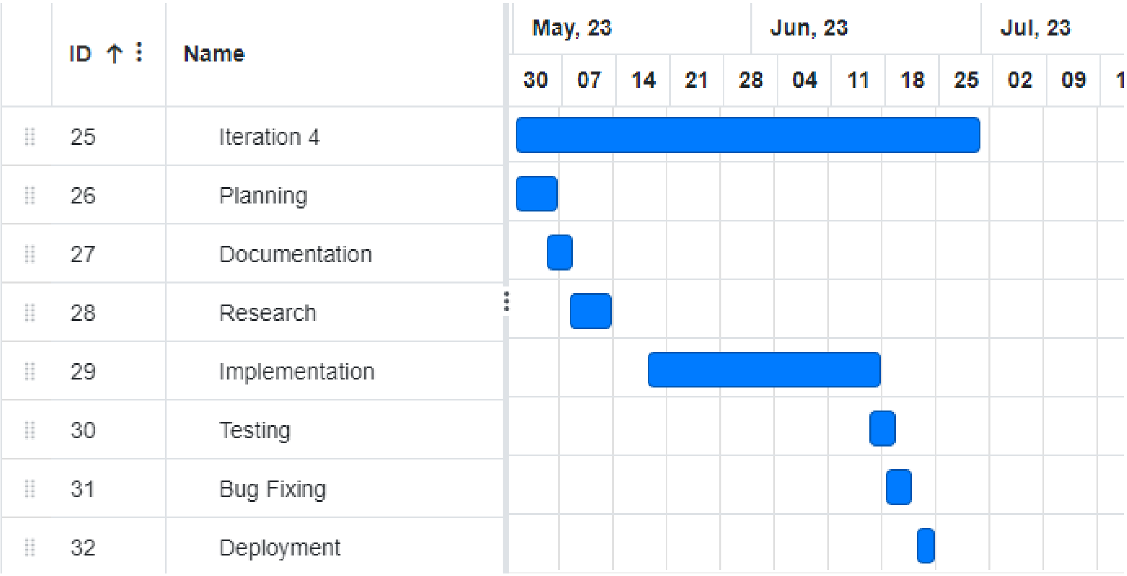
20	Research
21	Implementation
22	Testing
23	Bug Fixing
24	Deployment



ID	Name
25	Iteration 4
26	Planning
27	Documentation
28	Research
29	Implementation
30	Testing
31	Bug Fixing
32	Deployment

1.10 Hardware and Software Specification

Client-Side Hardware Requirements:
Laptop or Desktop or Mobile Device

Client-Side Software Requirements:
Browsers that can support HTML 5

1.11 Tools and technologies used with reasoning

Tools	Reason
VS Code	Used as IDE for front-end development. It is lightweight, extensible, free, open source and cross-platform
GitHub and Git	Used for team collaboration. Git is a version control system that lets you manage and keep track of the source history. GitHub is a cloud-based hosting service that lets you manage Git repositories.
Google Docs	Used for documentation. It helps to make professional-quality documents.

Technology	Reason
ReactJS	It's used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript.
NodeJS	Node. js is commonly used to develop real-time applications, also known as RTAs. Its asynchronous, event-driven nature, allows it to handle heavy input-output operations, which makes it much easier for Node. js developers to achieve the level of performance users have come to expect from modern real-time applications.
ExpressJS	Express is a node js web application framework that provides broad features for building web and mobile applications. It is used to build a single page, multipage, and hybrid web application. It's a layer built on top of the Node js that helps manage servers and routes.
MongoDB	is an open-source NoSQL database management program. NoSQL is used as an alternative to traditional relational databases. NoSQL databases are quite useful for working with large sets of distributed data. MongoDB is a tool that can manage document-oriented information, and store or retrieve information.