Dog Adoption Application

A Project-II Report

Submitted in partial fulfillment of requirement of the

Degree of

BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE & ENGINEERING

BY

Ritika Maheshwari

EN18CS301207

Under the Guidance of

Ms. Swati Tahiliani

Department of Computer Science & Engineering

Faculty of Engineering

MEDI-CAPS UNIVERSITY, INDORE- 453331

April 2022

Report Approval

The project work **"Dog Adoption Application"** is hereby approved as a creditable study of an engineering/computer application subject carried out and presented in a manner satisfactory to warrant its acceptance as prerequisite for the Degree for which it has been submitted.

It is to be understood that by this approval the undersigned do not endorse or approved any statement made, opinion expressed, or conclusion drawn there in; but approve the "Project Report" only for the purpose for which it has been submitted.

Internal Examiner

Name: Ms. Swati Tahiliani

Designation: Professor

Affiliation: Medi-Caps University, Indore

External Examiner

Name:

Designation

Affiliation

Declaration

I/We hereby declare that the project entitled **"Dog Adoption Application"** submitted in partial fulfillment for the award of the degree of Bachelor of Technology in 'Computer Science' completed under the supervision of **Ms. Swati Tahiliani, Assistant Professor & CSE** Faculty of Engineering, Medi-Caps University Indore is an authentic work.

Further, I/we declare that the content of this Project work, in full or in parts, have neither been taken from any other source nor have been submitted to any other Institute or University for the award of any degree or diploma.

Signature and name of the student(s) with date

Certificate

I/We, **Ms.Swati Tahiliani** certify that the project entitled **"Dog Adoption Application"** submitted in partial fulfillment for the award of the degree of Bachelor of Technology by **Ritika Maheshwari** is the record carried out by him/them under my/our guidance and that the work has not formed the basis of award of any other degree elsewhere.

_____ _____

Ms.Swati Tahiliani

Computer Science & Engineering

Medi-Caps University, Indore

_____

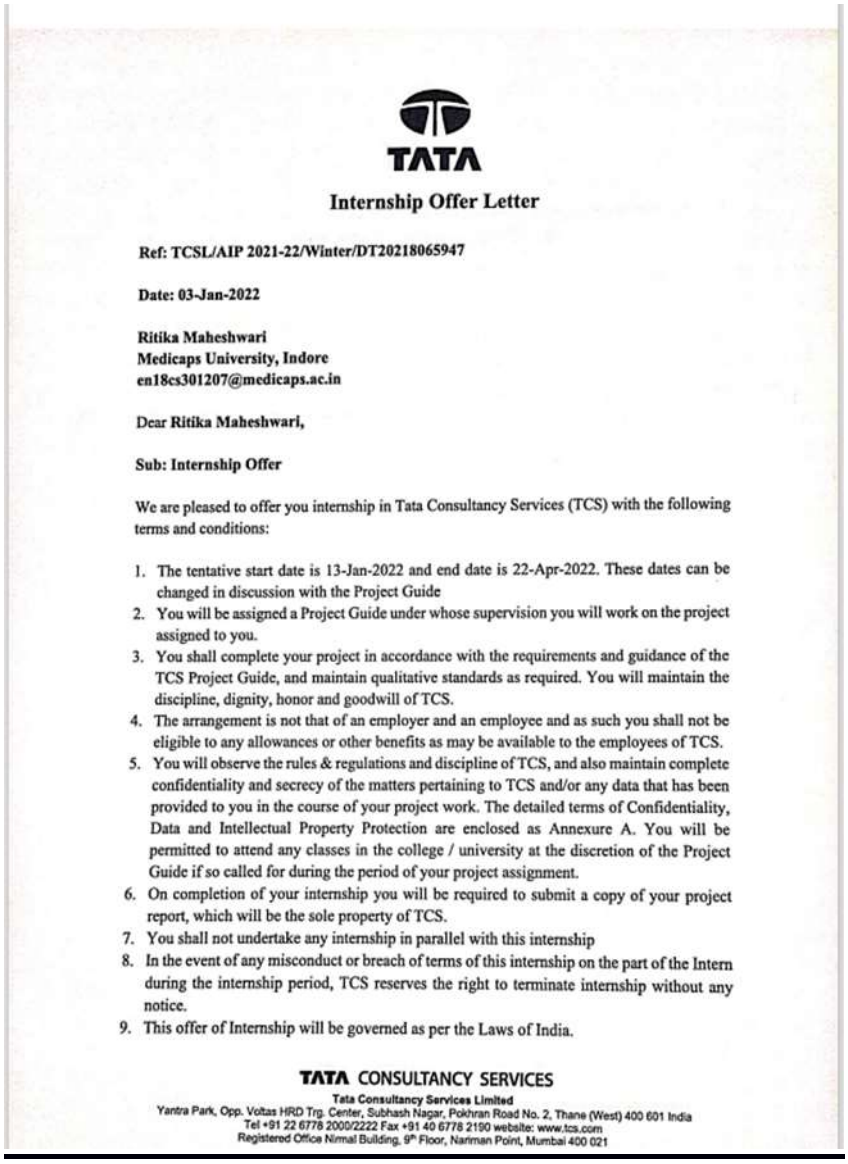
Dr. Pramod S. Nair

Head of the Department

Computer Science & Engineering

Medi-Caps University, Indore

Offer Letter of the Project work-II/Internship



TATA

Internship Offer Letter

Ref: TCSL/AIP 2021-22/Winter/DT20218065947

Date: 03-Jan-2022

Ritika Maheshwari
Medicaps University, Indore
en18cs301207@medicaps.ac.in

Dear **Ritika Maheshwari,**

Sub: Internship Offer

We are pleased to offer you internship in Tata Consultancy Services (TCS) with the following terms and conditions:

1. The tentative start date is 13-Jan-2022 and end date is 22-Apr-2022. These dates can be changed in discussion with the Project Guide
2. You will be assigned a Project Guide under whose supervision you will work on the project assigned to you.
3. You shall complete your project in accordance with the requirements and guidance of the TCS Project Guide, and maintain qualitative standards as required. You will maintain the discipline, dignity, honor and goodwill of TCS.
4. The arrangement is not that of an employer and an employee and as such you shall not be eligible to any allowances or other benefits as may be available to the employees of TCS.
5. You will observe the rules & regulations and discipline of TCS, and also maintain complete confidentiality and secrecy of the matters pertaining to TCS and/or any data that has been provided to you in the course of your project work. The detailed terms of Confidentiality, Data and Intellectual Property Protection are enclosed as Annexure A. You will be permitted to attend any classes in the college / university at the discretion of the Project Guide if so called for during the period of your project assignment.
6. On completion of your internship you will be required to submit a copy of your project report, which will be the sole property of TCS.
7. You shall not undertake any internship in parallel with this internship
8. In the event of any misconduct or breach of terms of this internship on the part of the Intern during the internship period, TCS reserves the right to terminate internship without any notice.
9. This offer of Internship will be governed as per the Laws of India.

TATA CONSULTANCY SERVICES

Tata Consultancy Services Limited
Yantra Park, Opp. Voltas HRD Trg. Center, Subhash Nagar, Pokhran Road No. 2, Thane (West) 400 601 India
Tel +91 22 6778 2000/2222 Fax +91 40 6778 2190 website: www.tcs.com
Registered Office Nirmal Building, 9th Floor, Nariman Point, Mumbai 400 021

Completion certificate/Letter

Building greater futures through innovation and collective knowledge

TCS Connections

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Master the journey

TCS TATA CONSULTANCY SERVICES

Building on belief

Internship Certificate

Ritika Maheshwari

Course: BTech in Computer Science and Engineering
Institute: Medi-Caps University, Indore

From 13-Jan-2022 to 22-Apr-2022
Mentor Name: Priyanka Bhaigade
Project: UItx-COE-mCoE-Olympus

Chandra Kodaru

Acknowledgements

I would like to express my deepest gratitude to Honorable Chancellor, **Shri R C Mittal,** who has provided me with every facility to successfully carry out this project, and my profound indebtedness to **Prof. (Dr.) Dilip K Patnaik,** Vice Chancellor, Medi-Caps University, whose unfailing support and enthusiasm has always boosted up my morale. I also thank **Prof. (Dr.) D K Panda,** Pro Vice Chancellor, **Dr. Suresh Jain,** Dean Faculty of Engineering, Medi-Caps University, for giving me a chance to work on this project. I would also like to thank my Head of the Department **Dr. Pramod S. Nair** for his continuous encouragement for betterment of the project.

I express my heartfelt gratitude to my **External Guide, Mr. Ganesh Ram Kandaswami**, Tata Consultancy Services, Indore as well as to my Internal Guide, **Ms. Swati Tahiliani,** Professor, Department of Computer Science Engineering, MU, without whose continuous help and support, this project would ever have reached to the completion.

I would also like to thank to my team at Tata Consultancy Services, Indore who extended their kind support and help towards the completion of this project.

It is their help and support, due to which we became able to complete the design and technical report. Without their support this report would not have been possible.

Ritika Maheshwari
B.Tech. IV Year
Department of Computer Science & Engineering
Faculty of Engineering
Medi-Caps University, Indore

Executive Summary

Based on the learnings of Android Studio and Kotlin in my training and my current domain as a project intern at the company, I have created a Dog Adoption Application platform using Android Studio.

The purpose of the project is to create a Dog Adoption Application in which a list of dogs are visible through recycler view and user can see the details of dogs like breed, origin.

The application has been created using all major features Android Studio as per my training at Tata Consultancy Services, Indore.

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About Company

Tata Consultancy Services (TCS) is an Indian multinational information technology (IT) services and consulting company headquartered in Mumbai. It is a part of the Tata Group and operates in 149 locations across 46 countries.

TCS is the second largest Indian company by market capitalisation and is among the most valuable IT services brands worldwide. In 2015, TCS was ranked 64th overall in the *Forbes* World's Most Innovative Companies ranking, making it both the highest-ranked IT services company and the top Indian company. As of 2018, it is ranked eleventh on the Fortune India 500 list. In April 2018, TCS became the first Indian IT company to reach $100 billion in market capitalisation. and second Indian company ever (after Reliance Industries achieved it in 2007) after its market capitalisation stood at ₹6.793 trillion (equivalent to ₹7.7 trillion or US$100 billion in 2020) on the Bombay Stock Exchange.

In 2016–2017, parent company Tata Sons owned 72.05% of TCS and more than 70% of Tata Sons' dividends were generated by TCS. In March 2018, Tata Sons sold stocks of TCS worth $1.25 billion in a bulk deal. As of 15 September 2021, TCS has recorded a market capitalisation of US$200 billion, making it the first Indian IT firm to do so.

TCS offers a consulting-led, cognitive-powered, integrated portfolio of business, technology, and engineering services and solutions. This is delivered through its unique Location Independent Agile™ delivery model, recognized as a benchmark of excellence in software development.

TCS Business and Technology Services help enterprises become future ready with its offerings across the digital technologies including Cloud, IoT, Business Operations, Infrastructure, Cybersecurity, Blockchain, Data and Analytics, Quality Engineering and Automation.

Website
tcs.com

Industry
IT Services and IT Consulting

Company size
5,28,748
Headquarters
Mumbai

Internship Details

My internship started from 13th Jan 2022 and will end on 22nd April 2022. I am hired as a Project Intern at Tata Consultancy Services. I'm part of application development team at TCS that works on Kotlin and android studio development projects.

Technology Stack used –

- Android Studio
- Kotlin

Role	Project Intern
Domain	Application Development
Technology	Kotlin
Joining Date	13 January 2022

About Project

Pet adoption is the process of transferring responsibility for a pet that was previously owned by another party such as a person, shelter, or rescue organization. Common sources for adoptable pets are animal shelters and rescue groups. Some organizations give adopters ownership of the pet, while others use a guardianship model wherein the organization retains some control over the animal's future use or care.

Online pet adoption sites have databases of pets being housed by thousands of animal shelters and rescue groups, and are searchable by the public.

The central issue in adoption is whether the new adopter can provide a safe, secure, and permanent home for the adopted pet. Responsible shelters, pounds, and rescue organizations refuse to supply pets to people whom they deem ineligible based on assessing their inability to supply the adopted animal with a suitable home. Sometimes, a new owner may face training or behavioral challenges with a pet who has been neglected, abused, or left untrained. In the vast majority of cases, patience, training, persistence and consistency of care will help the pet overcome its past.

To help lower the number of animals euthanized each year, some shelters have developed a no-kill policy. Best Friends Animal Society is the largest no-kill shelter in the United States who adopts policies such as "Save Them All". Like this shelter and many others, they strive to keep their animals as long as it takes to find them new homes. City shelters and government funded shelters rarely have this policy because of the large number of animals they receive.

Dog Adoption Application is a dog adoption sample application built to demonstrate Jetpack Compose Ui. Dog Adoption Application uses modern android development tools, design principles and best practices.

Features-

Dog Adoption Application simply loads data form from the api and shows it in Jetpack compose LazyList composable. Dog Adoption Application uses the Petfinders api as a data source to show the lists of pets in the application. Demonstrates how to implement animations while navigation between screens in Jetpack compose applications using the accompanist-navigation-animation library

My project is a Dog Adoption application, in which I fetch the data from PETFINDERS Api through retrofit and display that data in the form of recycler view.

In this project user can see the list of dogs.

User can also see the specific breed of dogs that want.

After that whichever dog user want to adopt can click on it and see the details of that dog.

Dog Adoption Application

I Created Dog Adoption Application using Android studio,Kotlin. In this user can view the list of dogs, and specific breed and gender of dog and with the help of this user can adopt a dog.

Technologies used-

Android Studio

Kotlin

Git Hub

Other Specifications-

Data Binding

Navigation

Retrofit Api

Technologies used-

1.Android Studio-

Android is a complete set of software for mobile devices such as tablet computers, notebooks, smartphones, electronic book readers, set-top boxes etc.

It contains a linux-based Operating System, middleware and key mobile applications.

It can be thought of as a mobile operating system. But it is not limited to mobile only. It is currently used in various devices such as mobiles, tablets, televisions etc.

2.Kotlin-

Kotlin is a modern, trending programming language that was released in 2016 by JetBrains.

It has become very popular since it is compatible with Java (one of the most popular programming languages out there), which means that Java code (and libraries) can be used in Kotlin programs.

Kotlin is used for:

- Mobile applications (specially Android apps)
- Web development
- Server side applications
- Data science

3.Git Hub-

GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management (SCM) functionality of Git, plus its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, continuous integration and wikis for every project. Headquartered in California, it has been a subsidiary of Microsoft since 2018.

It is commonly used to host open-source projects. As of November 2021, GitHub reports having over 73 million developers and more than 200 million repositories (including at least 28 million public repositories). It is the largest source code host as of November 2021.

Other Specifications-

1.Data Binding-

In Android, the Data Binding Library is a support library that allows you to bind UI components in your layouts to data sources in your app using a declarative format rather than programmatically.

Data Binding as a single term refers to the technique that connects data from end consumers and users and then keeps them in sync. Android's Data Binding Library lets the developer keep the UI within the layout XML files and generates code from them. The library also does the work of synchronizing the View with data that comes from the ViewModel.

2.Navigation-

Navigation basically in mobile development refers to the interaction between different screens or pieces of contents within the application. Android Jetpack's architecture Component the Navigation is so powerful, providing a consistent and predictable user experience. The navigation component helps to implement the Navigation between activities and fragments or chunks of the data in the application by simple button clicks. In this article, it's been discussed from Navigation key properties to implementing sample Navigation between the fragments.

Three key properties of Navigation are:

1. **Navigation Graph:** This is the XML file containing all of the individual content areas, within the applications called destinations. These may be possible paths that users may take through the application.
2. **NavHost:** This is the XML file which is an empty container that displays the destinations as the user navigates, an. This basically contains the NavHostFragment, which displays the various destinations from Navigation Graph.
3. **NavController:** NavController is an object which manages the navigation of destinations with NavHost. This controls the swapping of destination content as the user navigates through the destinations through the application.

3.Retrofit Api-

The Kotlin team defines coroutines as "lightweight threads". They are sort of tasks that the actual threads can execute. Coroutines were added to Kotlin in version 1.3 and are based on established concepts from other languages. Kotlin coroutines introduce a new style of concurrency that can be used on Android to simplify async code. In this article, we will learn about retrofit using Kotlin coroutine. So we will be using Retrofit for network requests. Retrofit is a very popular library used for working APIs and very commonly used as well.

Project Snapshots

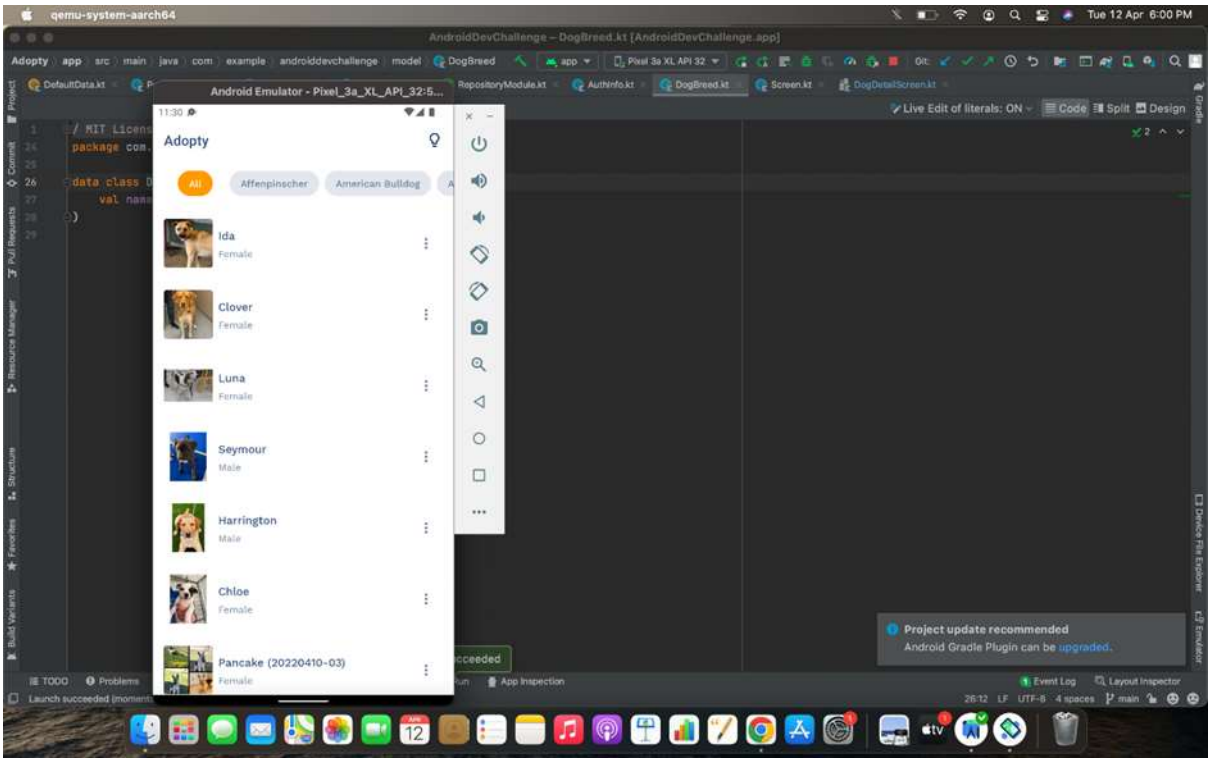


Fig 1 – Dog List

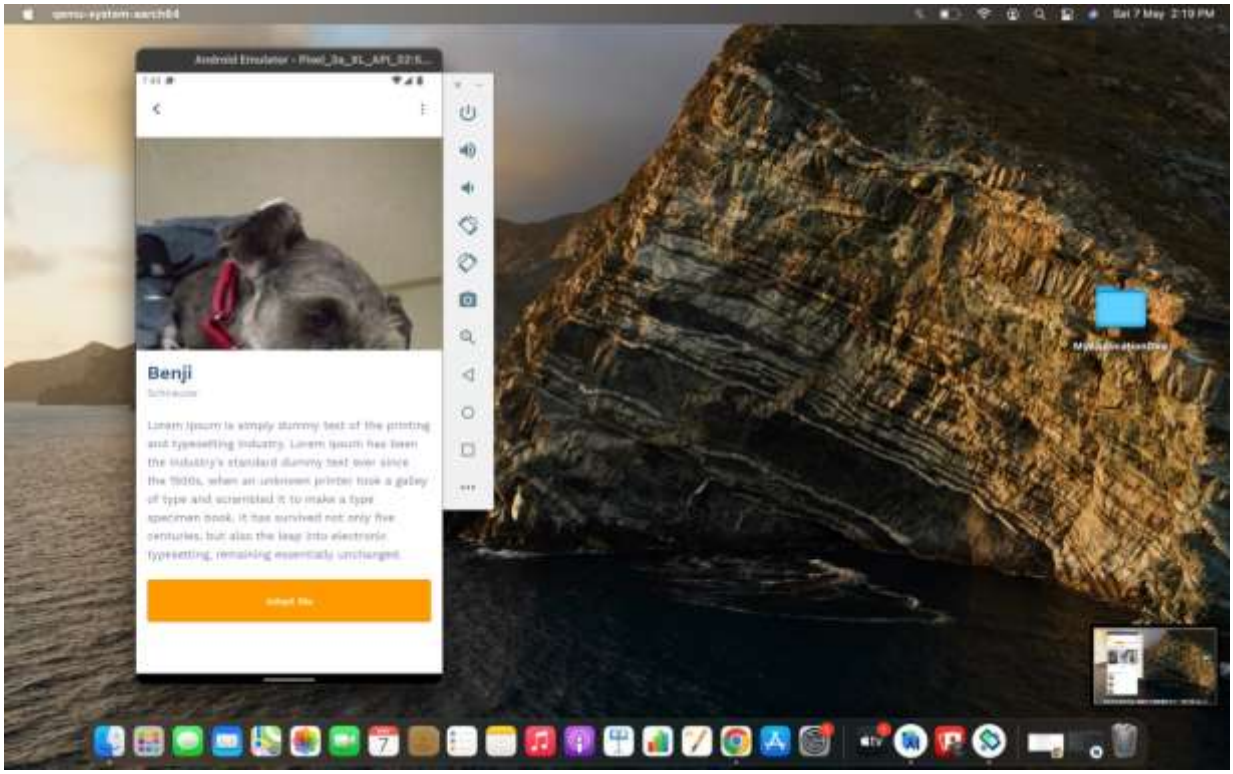


Fig 2 – Details

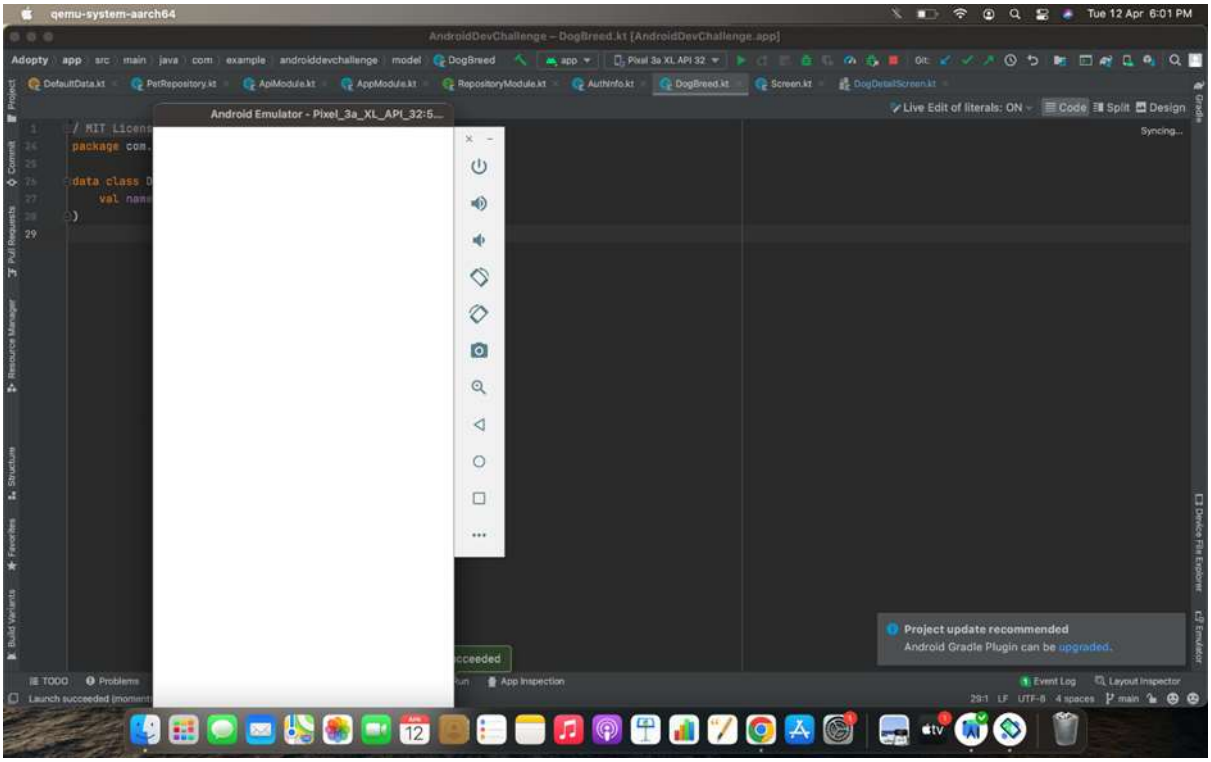


Fig 3 – Splash Screen

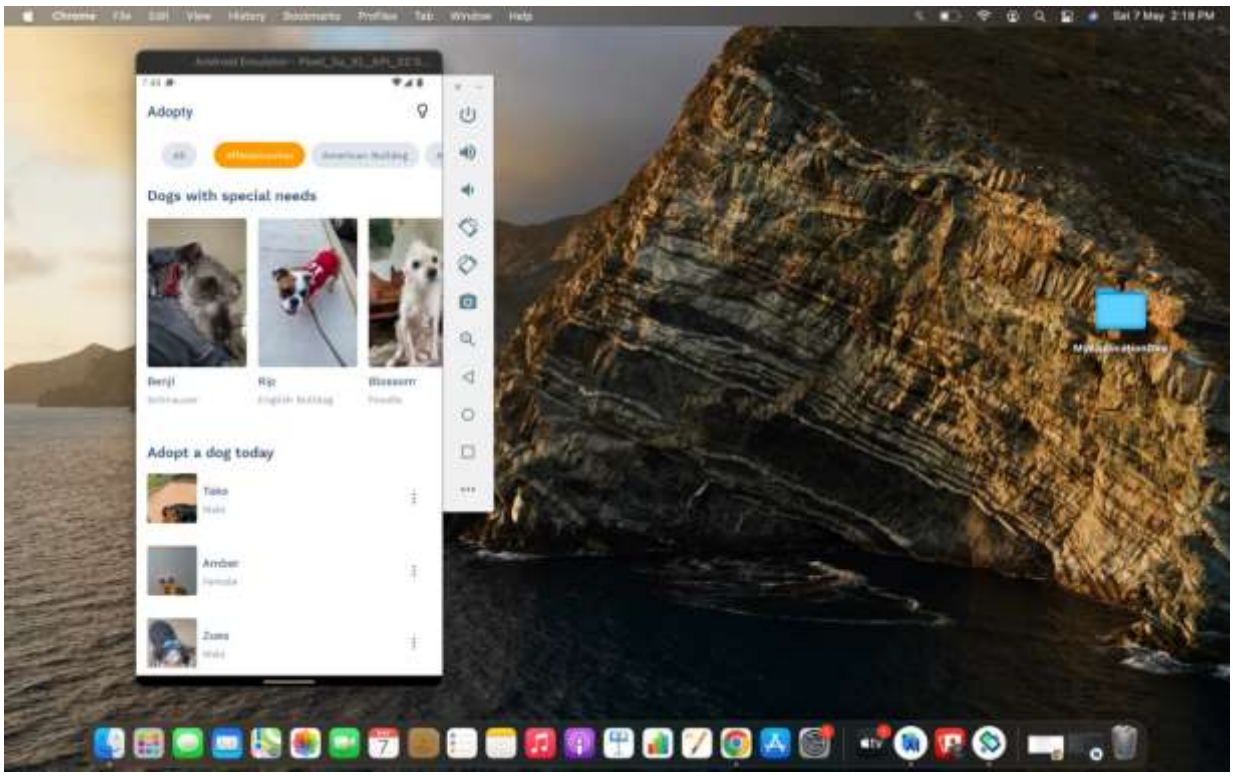
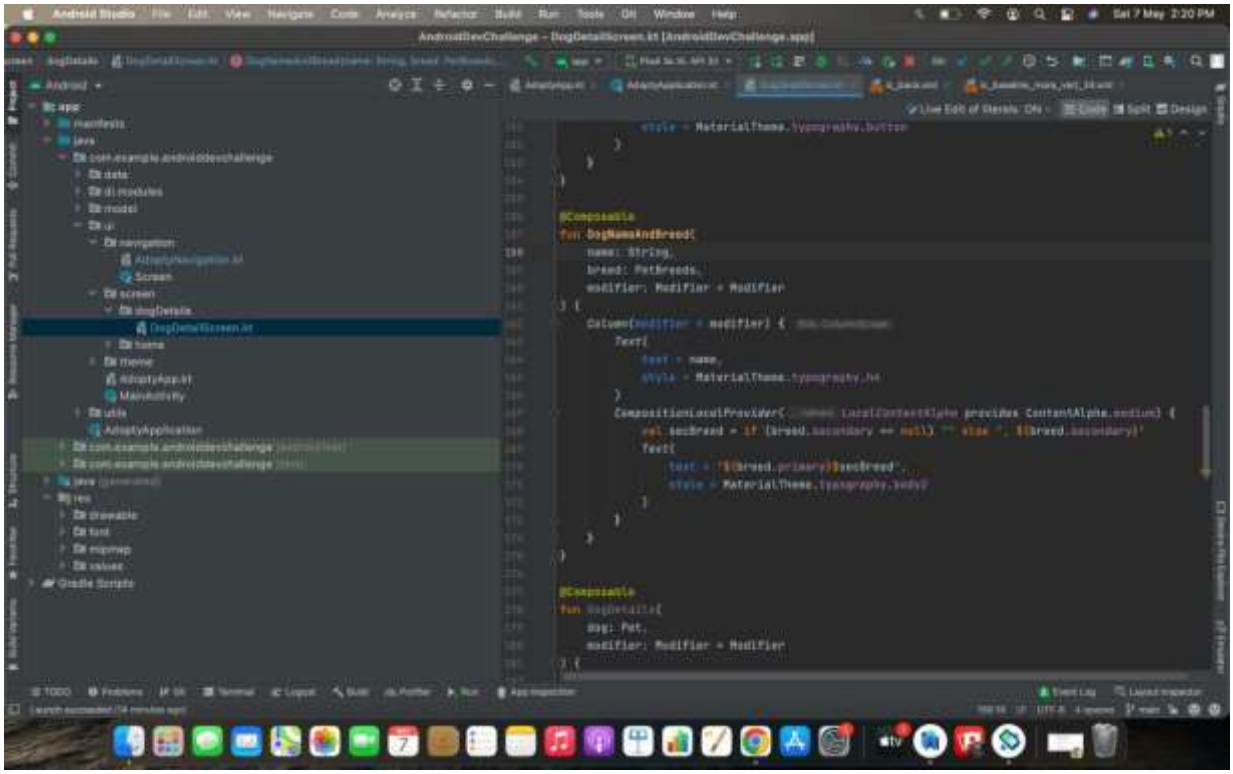
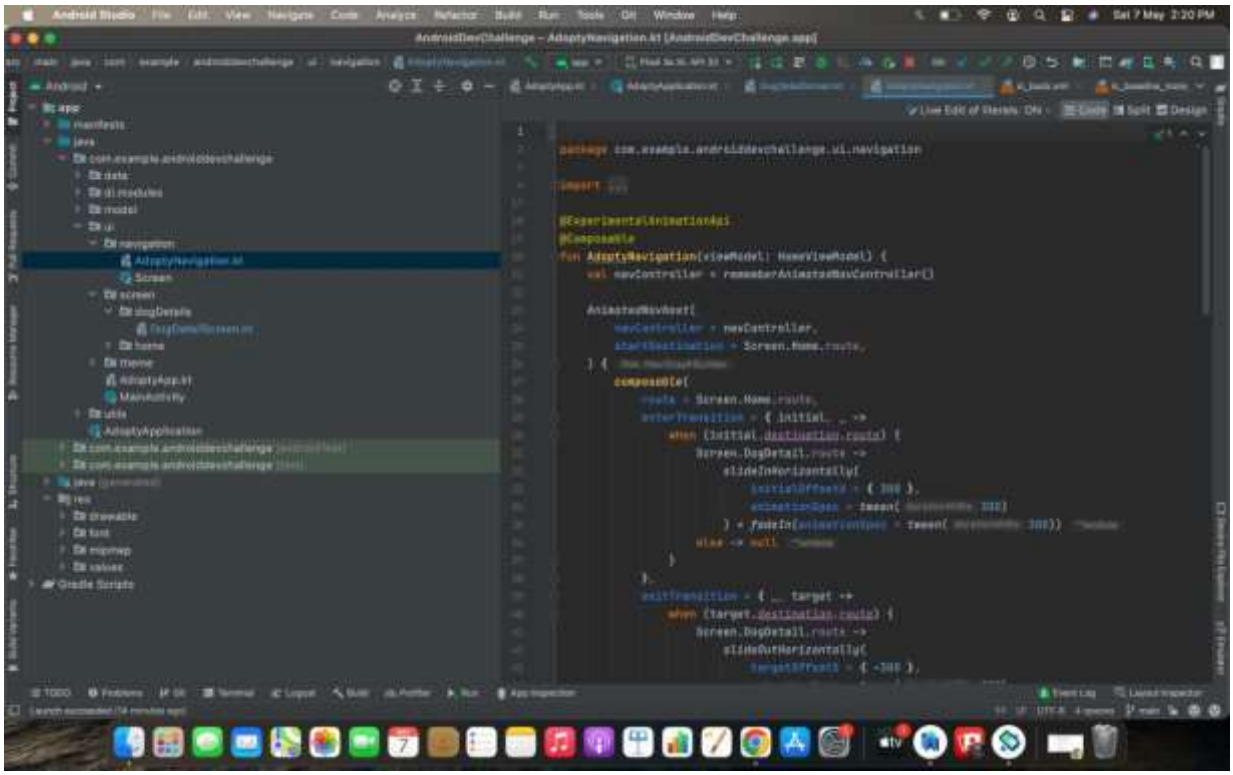


Fig 4 – UI

Code Snippets-





Internship Work

My internship at TCS started on 13th January 2022. All the interns were given an overview of the IT team at TCS and we did some team bonding activities.

I was assigned to work on the android studio. For completing the task assigned to me I have to learn Kotlin as a skill set and also learned how to use android studio.

Things I learned in java –

- OOPS concepts
- Android Studio
- Data Structure
- Kotlin
- Retrofit Api
- Recycler View
- Data Binding
- Jetpack Components
- Navigation

Future Scope

In order to get the details of the owner of the pet we can add that and we can also create a login and sign up page for the users through which they can enter and adopt the dog.

Payment gate way option can be added so that user can make the payment through the application directly.

Chat option can also be added so that buyer can contact with the seller and know the information about the dog on application itself.