### **Industrial Training Report**

on

#### APP DEVELOPMENT

undertaken at

#### SOLITARE INFOSYSTEMS PVT. LTD. PATIALA

(05/06/2024 to 26/06/24)

submitted in partial fulfilment for the award of the degree

Of

#### **BACHELOR OF ENGINEERING**

IN

#### COMPUTER SCIENCE AND ENGINEERING

(Subject Code: TPID-521)



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### **Preface**

The purpose of this report is to document the knowledge, skills, and experiences gained during my industrial training at Solitaire Infosys.

It is prepared by me student of GCS department, batch 2022-2026 after completion of training period to indicate what I had observed and learned during our industrial training.

It contains details about what I have learned ANDROID DEVELOPMENT and what projects and assignments I have done during my training.

This report aims to provide a comprehensive overview of the project, the learning outcomes, and the overall experience during my training period.

## **Acknowledgement**

I would like to express my profound gratitude to Dr. BIRMOHAN SINGH, HOD of Computer Science and Engineering department and Dr. MAJOR SINGH GORAYA

Head of Training and placement Department for providing me an opportunity for Industrial training during summer vacations. I would also like to thank our class Counsellor and Department industrial training coordinator sir

Dr. MANMINDER SINGH Professor of Computer Science and Engineering department for helping and guiding us in completing our training successfully.

I would also like to thanks Mr. HARMANJOT SINGH of SOLITAIRE INFOSYS who guided and helped us during our summer training in industry and provided us knowledge in the field of Android Development and helped us in creating Projects and completing this training program smoothly.

## Index

- 1. Introduction about the Industry
- 2. Training Schedule
- 3. Project Handled
- 4. Learning after Training
- 5. Summary

## **Introduction about the Industry**

This training is done in SOLITAIRE INFOSYS PVT LTD, a software company in Mohali. It provides high quality comprehensive services to enterprises across wide range of platform and technologies. They offer services like IT consulting, Software Design and prototyping, customer software development, Software testing and QA services, a application development and more.

It has main branch in Mohali and a sub branch in Patiala as a training center.

# **Training Schedule**

This industrial training is done during summer vacations, from 5/06/24 to 26/06/24. It is a three-week industrial training on App Development. In these three weeks Fridays were for personality development classes.

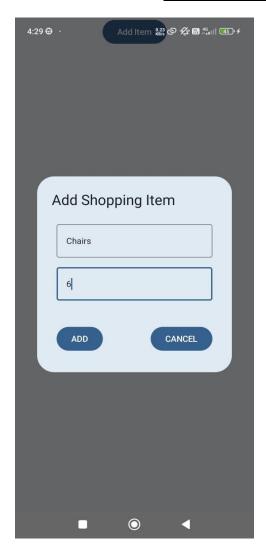
5/06/24	Introduction to the Company
6/06/24	Introduction to Android Development ,Kotlin code compilation ,Setting up Android Studio
10/06/24	Basics of Kotlin ,Datatypes ,If-else ,When statements and Nullable in Kotlin
11/06/24	Functions ,loops in Kotlin and Intro to basic data structure (arrays)
12/06/24	Classes in Kotlin ,Constructors ,Getters and Setters and Initializer Block uses and implementation
13/06/24	Inheritance concepts ,Super and overloading keywords and Abstract Classes
17/06/24	Coroutines ,Suspend Functions ,Non-Blocking codes
18/06/24	Introduction to Jetpack Compose ,Modifiers ,Rows and Columns
19/06/24	Introduction to States ,Remember ,Textfields ,Buttons ,etc
20/06/24	Live Demo of creation of UI of Instagram profile page
24/06/24	Navigation ,Introduction to MVVM architecture
25/06/24	Properties of ViewModel ,Construction of inherited class from ViewModel Class
26/06/24	Practical Implementation and uses of MVVM architecture

### **PROJECT HANDLED**

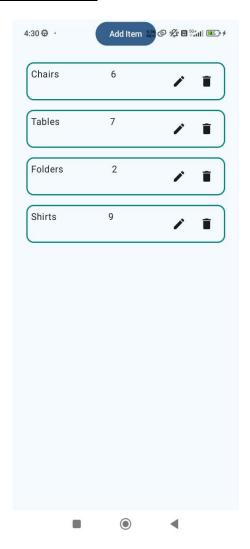
### **SHOPPING LIST APP:-**

The shopping list app I developed includes several core functionalities designed to streamline the process of managing grocery items. The app allows users to add new items to their shopping list with ease, specifying both the item name and quantity. Users can also edit existing entries, making it simple to update the name or quantity of items as their shopping needs change. Additionally, the app provides the ability to delete items from the list, helping users maintain an up-to-date and organized shopping list. The overall functionality is centred around creating, reading, updating, and deleting (CRUD) operations, ensuring a seamless and efficient user experience. This makes the app highly practical for daily use, allowing users to manage their shopping tasks with minimal effort.

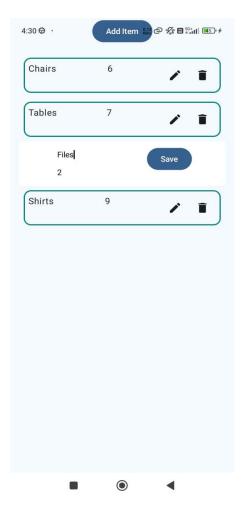
# **Project Screenshots**



1.Creating



2.Reading





3.Updating

4.Deleting

### **Learning after Training**

During my summer training, I gained a comprehensive understanding of Android development, starting with the basics of setting up Android Studio and compiling Kotlin code. I delved into the fundamentals of Kotlin, exploring data types, control structures like if-else and when statements, and the nuances of nullable types. I also learned about functions, loops, and basic data structures, including arrays. My training covered object-oriented programming with classes in Kotlin, including constructors, getters and setters, and initializer blocks. I explored advanced concepts like inheritance, the use of super and overloading keywords, and abstract classes. Additionally, I was introduced to coroutines for managing asynchronous tasks and the use of suspend functions for nonblocking code execution. I worked with Jetpack Compose to create user interfaces, mastering components like modifiers, rows, columns, and state management. My learning culminated in a practical project where I developed the UI for an Instagram profile page. I also studied navigation and the Model-View-ViewModel (MVVM) architecture, understanding ViewModel properties and implementing the architecture in real-world applications.

### **Summary**

This report provides an overview of the industrial training undertaken during the summer vacation. It includes details about the company, assignments, and projects completed during the training. This experience has been instrumental in gaining practical knowledge and skills in app development.