# **Project Ideas**

# 1. Banking System

A SCALA project is designed with an object-oriented approach, with classes for customers, accounts, transactions, and banking services. Features included creating and managing customers, accounts, and transactions, as well as performing banking services such as withdrawals, deposits, and transfers. It also allows customers to view their account information, including account balances, recent transactions, and other details.

**Technologies Required:** SCALA programming language, OOPS, functional programing and MySQL or Files.

#### 2. Medical Information System

A Medical Information System is designed to store and organize patient medical information, such as demographic and clinical data, lab results, and other relevant information using a SCALA programming language. The system is designed to allow easy expansion, and efficient and secure payments using object-oriented programming techniques to ensure the data is stored, retrieved, and managed efficiently. The system can use encryption and authentication techniques to ensure the data is kept secure and private for a particular patient.

**Technologies Required:** SCALA programming language, Object Oriented Programming (OOP), Encryption & Authentication and MySQL or Files.

## 3. Stock Management System

The Stock Management System in SCALA is a program designed to help businesses manage their stock levels. It tracks the current inventory of products and allows users to add, delete and modify items in the inventory. Technologies used in this project include SCALA and MySQL or Files. MySQL or Files are used to store and manage data. SCALA is used for the program's backend, allowing for the stock management system to be easily modified and extended. The Stock Management System is a powerful tool that can help store owners and managers keep track of their stock, allowing them to make the most of their resources.

**Technologies Required:** SCALA programming language, Object-oriented Programming (OOP), and MySQL or Files.

#### 4. Hospital Management System

The Hospital Management System can help any hospital or healthcare facility by boosting productivity, lowering paperwork, and enhancing patient care. The Hospital Management System in SCALA simplifies the process for hospitals and other healthcare organizations to manage medical records, billing, and appointments. Among the information stored in the system are vital signs, medical history, medication details, laboratory results, and billing information. A hospital management system that keeps records of doctors, their appointments, patients, staff, and more using object-oriented programming and file handling (in SCALA).

**Technologies Required:** SCALA programming language, Object Oriented Programming (OOP), and MySQL or Files.

# 5. School Management System

School Management System project can be used to manage and track student performance, attendance, and grades. The School Management System project aims to develop a School Management System in SCALA that can be used by schools to manage their daily operations. The system will enable the school to store, manage, and access student records, teacher records, course information, exam schedules, and other important data related to the activities in the school.

**Technologies Required:** SCALA programming language, Object Oriented Programming (OOPs), MySQL or Files, Data Structures, and Algorithms.

#### 6. Hotel Management System

A Hotel Management project in SCALA is designed to digitalize the operations of a hotel. It offers different features such as hotel room booking, room maintenance, customer management, billing, and report generation. The system provides a secure and efficient way of managing the hotel's operations and ensures customer satisfaction. The Hotel Management System covers the key features of checking-in, checking-out, booking, reservation, and billing for hotel management.

**Technologies Required:** SCALA programming language, Object-Oriented Programming, and Structured Query Language (SQL) or Files.

### 7. Library Management System

Library Management System provides an interface to register new users, check in, report generations, manage library resources and handle book checkout. Managing user accounts, creating reports, and monitoring library usage is extra functionality provided by the library management system. The library's management system can keep track of the books it has on hand, which include their availability information such as location, as well as the individuals that are borrowing them, their due dates, and any fines they may have gained. The information in Library Management System is stored and retrieved by the object-oriented system using a variety of technologies and techniques, which include classes, inheritance, polymorphism, and data structures.

**Technologies Required:** SCALA programming language, Data Structures, Database Management System (DBMS), and File I/O.