EGE UNIVERSITY

FACULTY OF ENGINEERING

COMPUTER ENGINEERING DEPARTMENT

ADVANCED OBJECT ORIENTED PROGRAMMING

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PROJECT REPORT

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Table of Contents page

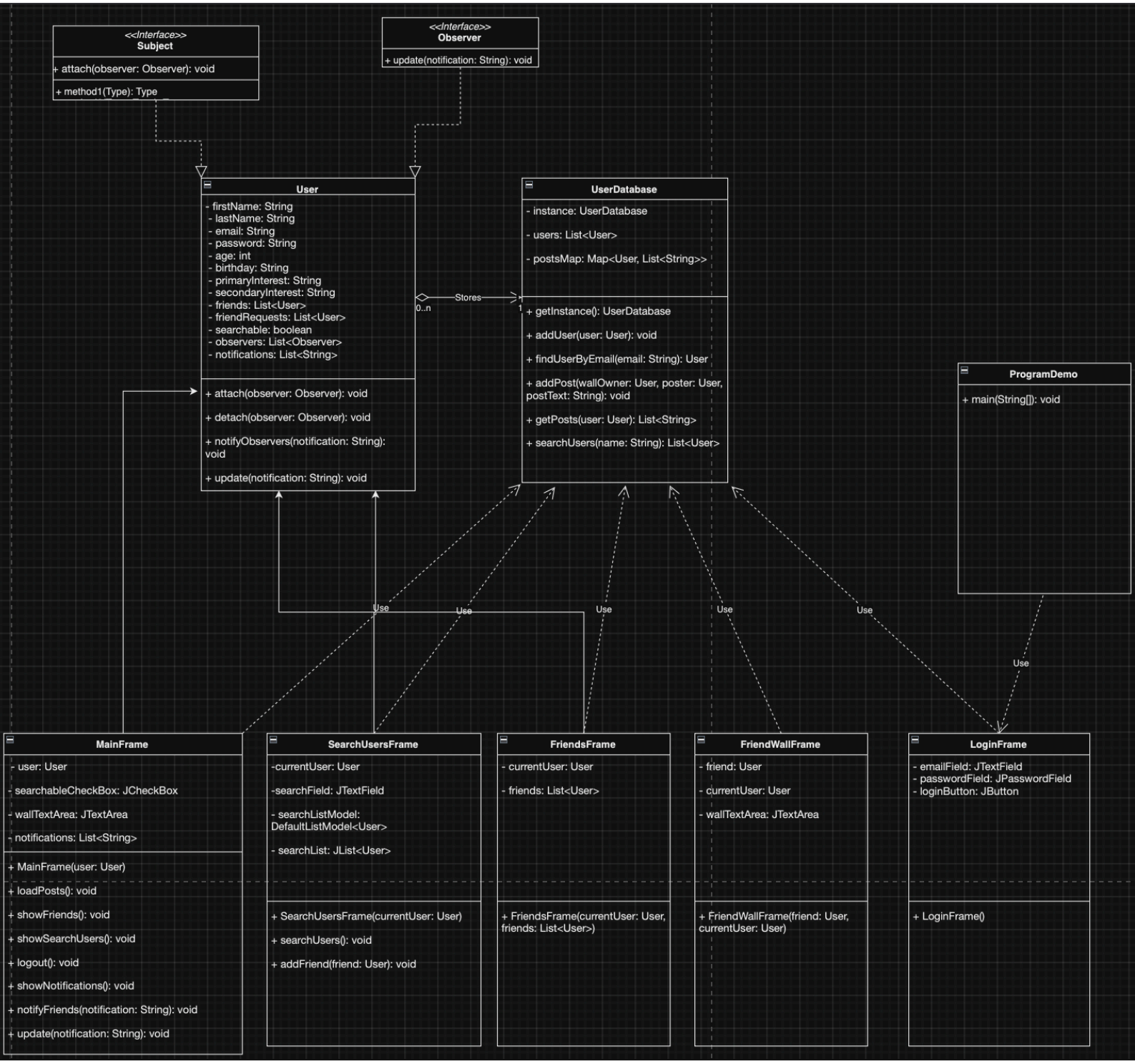
PROJECT IN SHORT

A simple Facebook-like social network software was designed and implemented using design patterns and the Java language on a single machine.

Social networks are social structures consisting of individuals connected to each other through one or more types of relationships (such as friendship, common interests, family relationships, etc.) and individual constraints defined in context (such as allowing or disallowing anyone to add someone as a friend, etc.).

In this context, the social network software we developed allows its members to be connected to each other through various relationships, primarily friendship, and enables members to search for and find each other. Additionally, members who do not wish to appear in searches can define this as a constraint. Each member can have a wall where they can share links and/ or textual information.

UML CLASS DIAGRAM



DESIGN PATTERNS

Observer:

```
public interface Observer {
    void update(String notification);
}
```

Singleton:

```
public static UserDatabase getInstance() {
    if (instance == null) {
        instance = new UserDatabase();
    }
    return instance;
}
```

Factory:

```
public class UserFactory { //FACTORY DESIGN PATTERN

    public static User createUser(String firstName, String lastName, String email, String password, int age, String
        return new User(firstName, lastName, email, password, age, birthday, primaryInterest, secondaryInterest);
    }
}
```

END