



Software Engineering I

“Is It Lost?”

Phase II - Software Design

The Dark Team

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Phase 2 – The Dark Team

Project: Is It Lost

Software Design Specification

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Document Purpose and Audience

- This document serves a draft of the software's design and describes the relations and flow of events (interaction) among the different objects of the system and what's the corresponding methods are used.
between its various components
- This document is to be provided to the development team who will write the code based on these givens, and also for any other technical who want to know the internal design of this ongoing app.

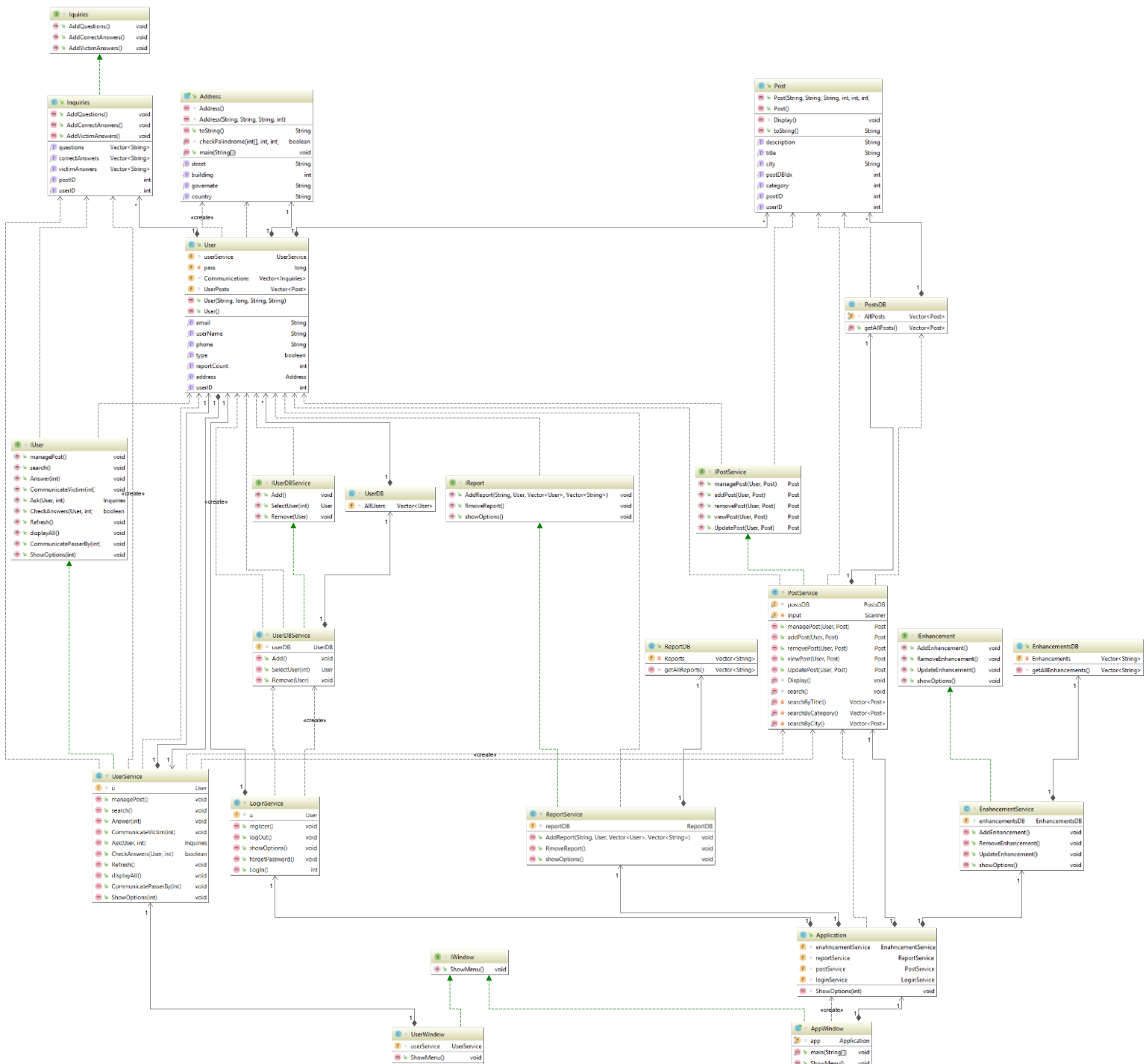


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- Some fields are encapsulated as properties using IntelliJ, which add automatically the setters and getters and shows the corresponding field as a property in the class diagram.





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Class ID	Class Name	Description & Responsibility
1.	IWindow	Interface to abstract any Boundary class in the application to show its menu Options, directly implements it two classes: UserWindow, AppWindow
2.	AppWindow	Boundary for enabling anyone open the application to start by calling the main and be ask them to enter a number to choose an initial action.
3.	UserWindow	Boundary for enabling a specific user to do some functionalities given that he is now a part of the system.
4.	Address	Entity that holds the details of the address as (street, governate, ...)
5.	User	Entity that holds the basic info of the user as (email, phone, address, ...)
6.	IUser	Interface to abstract the functionalities that class UserService can do.
7.	UserService	Service class to enable the main functionalities the user can do as display posts or Communicate or Verify or manage a post.
8.	UserDB	Entity or model to save all the users of this app that have registered.
9.	IUserDBService	Interface that abstracts the Service class of UserDBService.
10.	UserDBService	Service class that allows us to Add a new user to the database or select a user using a given ID or even Remove a user from the database.
11.	Application	Controller used to let the choice entered in the AppWindow to be performed such as add enhancements or report a deceitful or even log out.
12.	ReportDB	Entity or model to save all reports the users have made.
13.	IReport	Interface to abstract the class ReportService to add or remove reports.
14.	ReportService	Service to enable the use of the ReportDB Entity such as add or remove reports given a user and the corresponding deceitful user.
15.	Post	Entity to hold the info need by each post will be created such as a (description, title, city, postDBIdx, ...)
16.	PostsDB	Entity or model to hold all posts have been added to the system by any user.
17.	IPostService	Interface to abstract the functions which will be implemented in the PostService class.
18.	PostService	Service class to add, remove, update a post, or search among all the posts.
19.	IEnhancement	Interface to abstract the utilities done by the EnhancementService class.
20.	EnhancementDB	Entity or model to hold all the enhancements that users suggest.
21.	EnhancementService	Service class to enable the use of EnhancementDB entity as update and remove and add.



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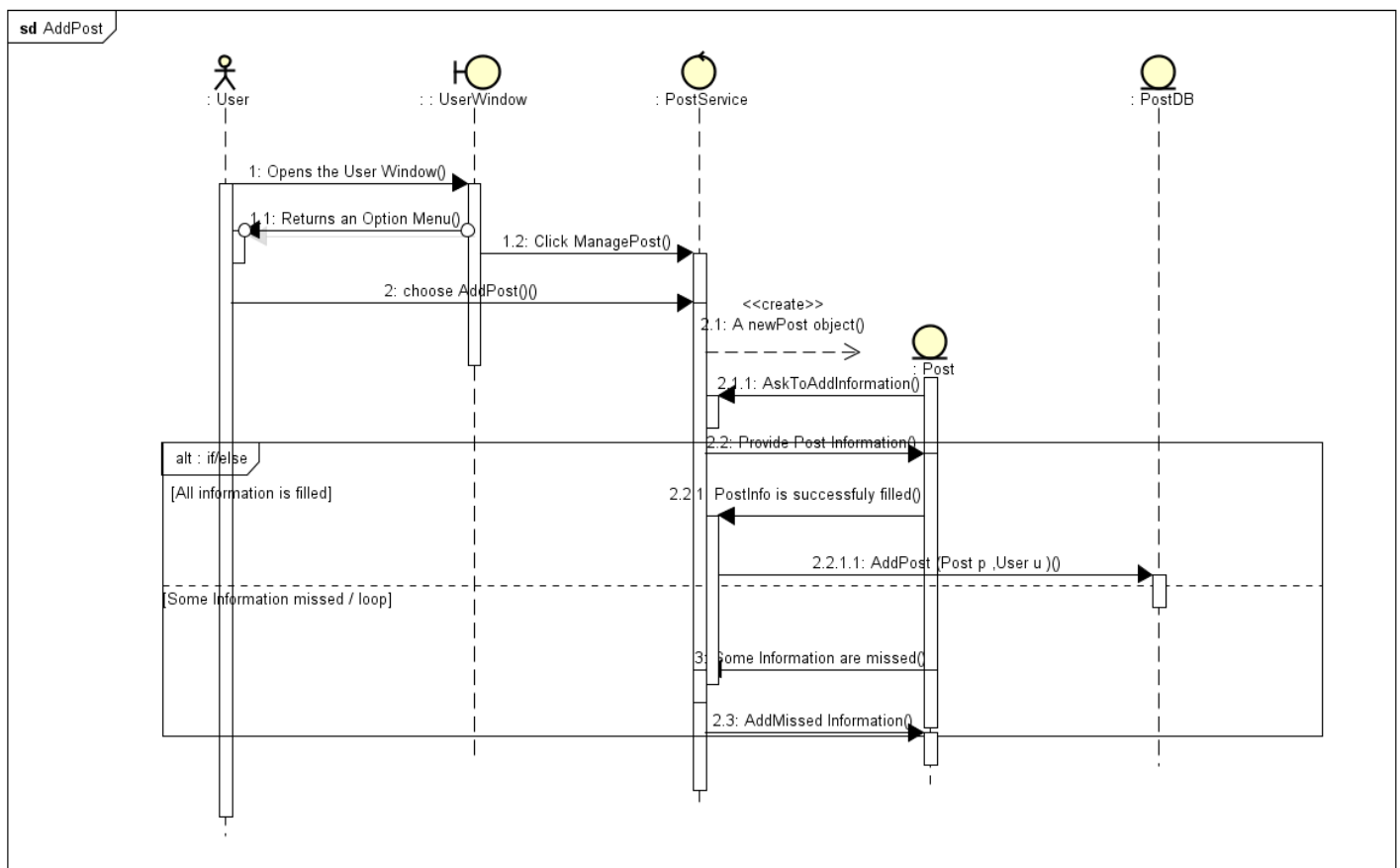
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Class ID	Class Name	Description & Responsibility
22.	Inquiries	Interface to abstract the class Inquiries which is used in the verification.
23.	Inquiries	Controller class to add Questions and provide the correct answers, then another method to ask the victim to enter his answers to these questions.
24.	LoginService	Service class to let the user to register to the system, log out, log in or provide a help if the password is forgotten.

II. Sequence diagrams

1.



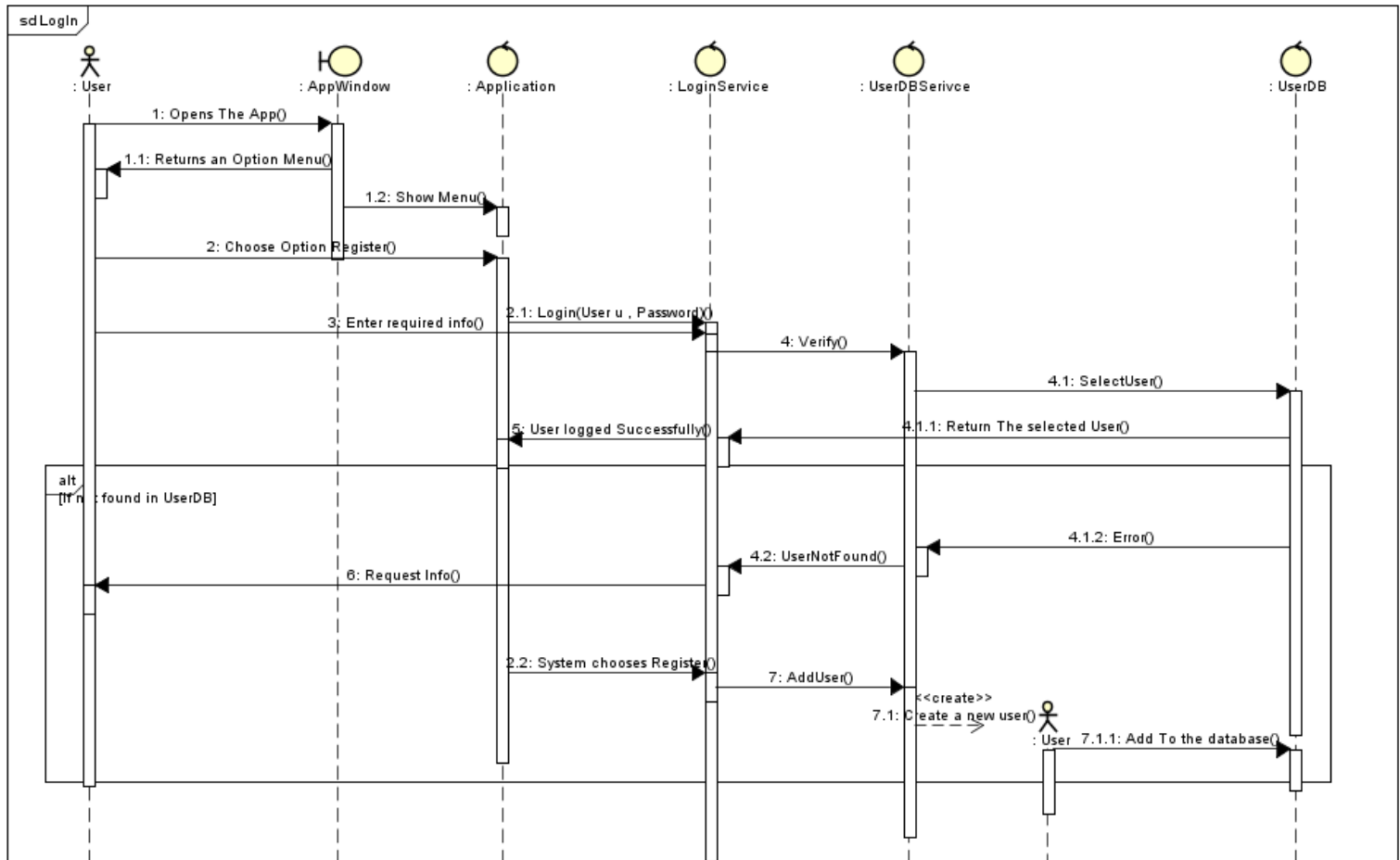


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2.



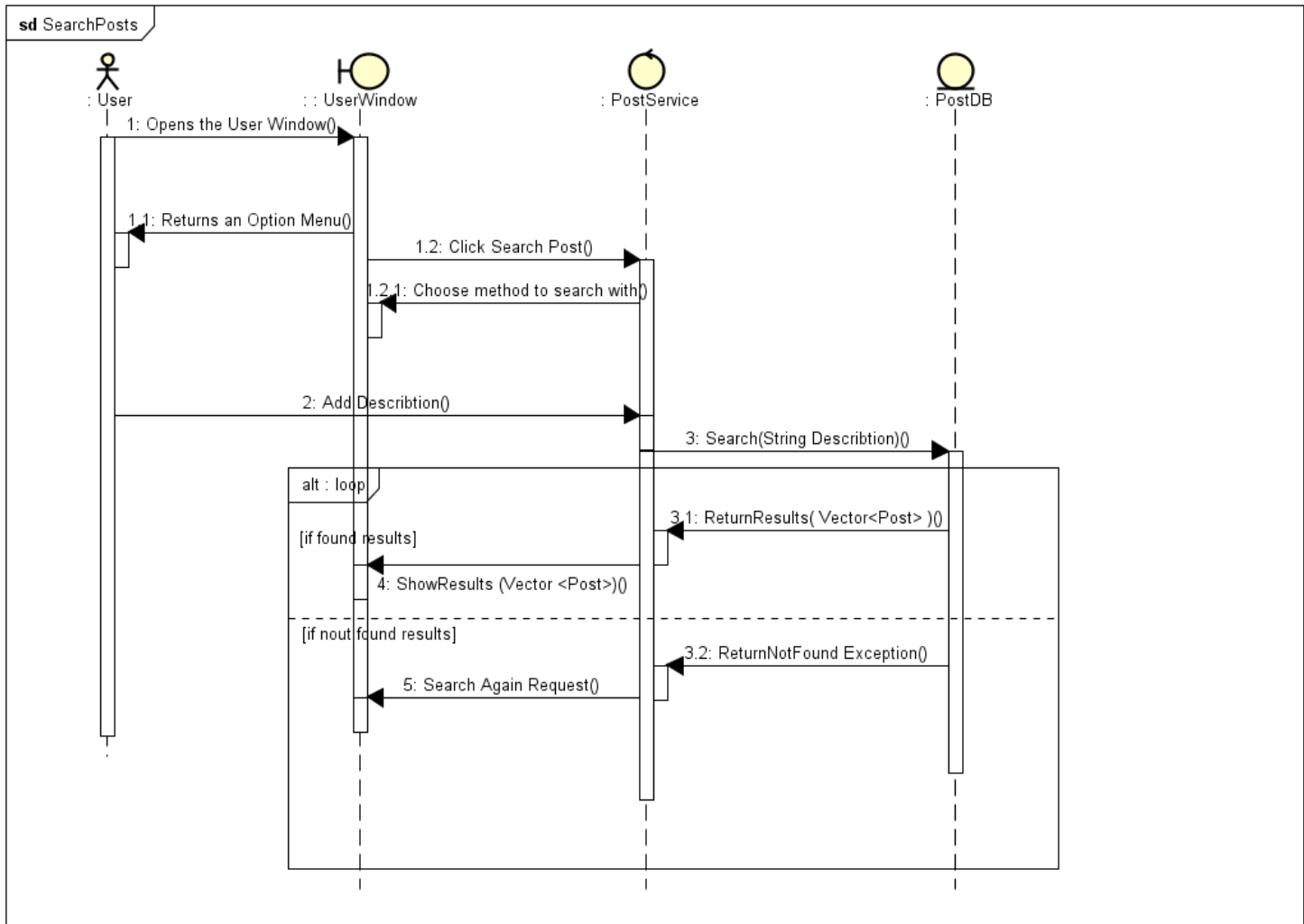


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3.



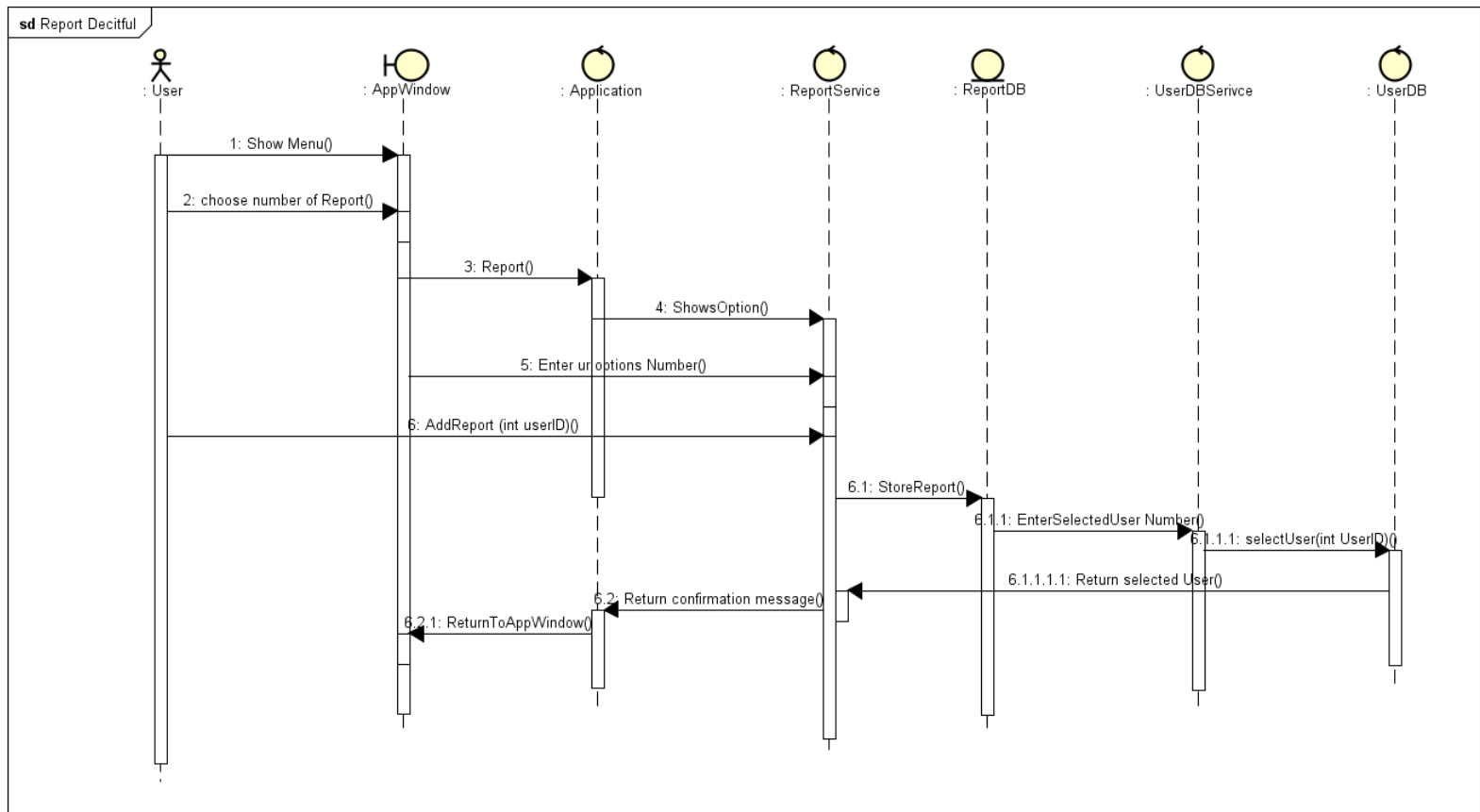


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4.





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Class - Sequence Usage Table

Class Name	Sequence Diagrams	Overall used methods
User	1,2,3,4	Setters and Getters
UserWindow	1,3	ShowMenu()
PostService	1,3	ManagePost(User,Post), addPost(User,Post), ViewPost(User,Post), Display(), Search(String)
Post	1	Display(), ToString(), Setters and Getters
PostDB	1,3	getAllPosts()
AppWindow	2,4	Main(), ShowMenu()
Application	2,4	ShowOptions()
LoginService	2	Register(), login(), showOptions()
UserDBService	2	Add(), SelectUser()
UserDB	2,4	selectUser()
ReportService	4	AddReport(String, User), ShowOptions()
ReportDB	4	getAllReports()