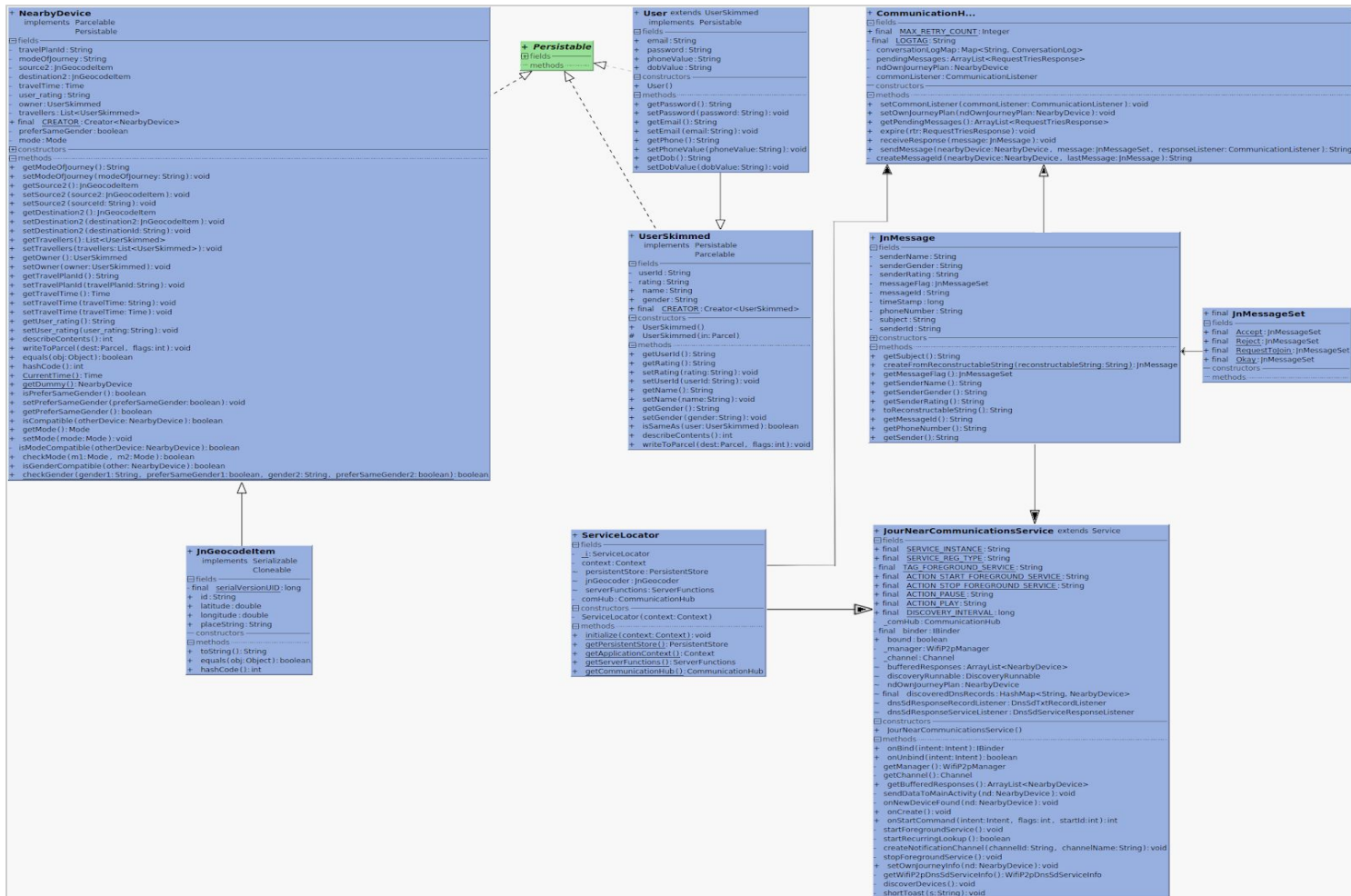


## Structure Model (Class Diagram)



### JourNear Class Diagram:

The class diagram mainly contains classes that have been used for the development of the application. It contains the member variables and functions which describe the functionality of the application. Entities like User, User Skimmed, Nearby Device, JnGeoCoder, JnMessage, JnMessageSet helps to save and view information of user and journey. Services like Service Locator, JnCommunication Service and Communication hub are responsible for finding p2p devices and their communication.

The classes and their description are as follows:

- User and User Skimmed class: These classes are used for basic user information and storing it in the persistence. User Skimmed class is used to pass around in other classes without passing unnecessary fields.
- Nearby device class: This is used while communicating with other devices over DNSsd. This class also holds journey information like source, destination, time of travel and preferences.
- JnGeoCoder class: This class is used in getting the latitude and longitude of the source and destination in the journey. This class is further used with the Maps component for navigation.
- JnMessage and JnMessageSet class: These are used in the communication part. While communicating with devices, information is passed on to other devices packed in the

JnMessage object. The JnMessage is an enum used to set and compare values passed in the communicating devices.

- Service Locator, JnCommunication Service and Communication hub: These are the service classes that contains functions to communicate with the devices. Communication hub is used for receiving the JnMessage and journey information while JnCommunication Service is used to broadcast the JnMessage with the journey information.