**User Interface Design of IDTO Project**

Part I: **User Interface of Passenger Mobile Application**

* Essential functions:

1. User registration (sign up) and sign in;
2. Database management of User and user’s stored trip;

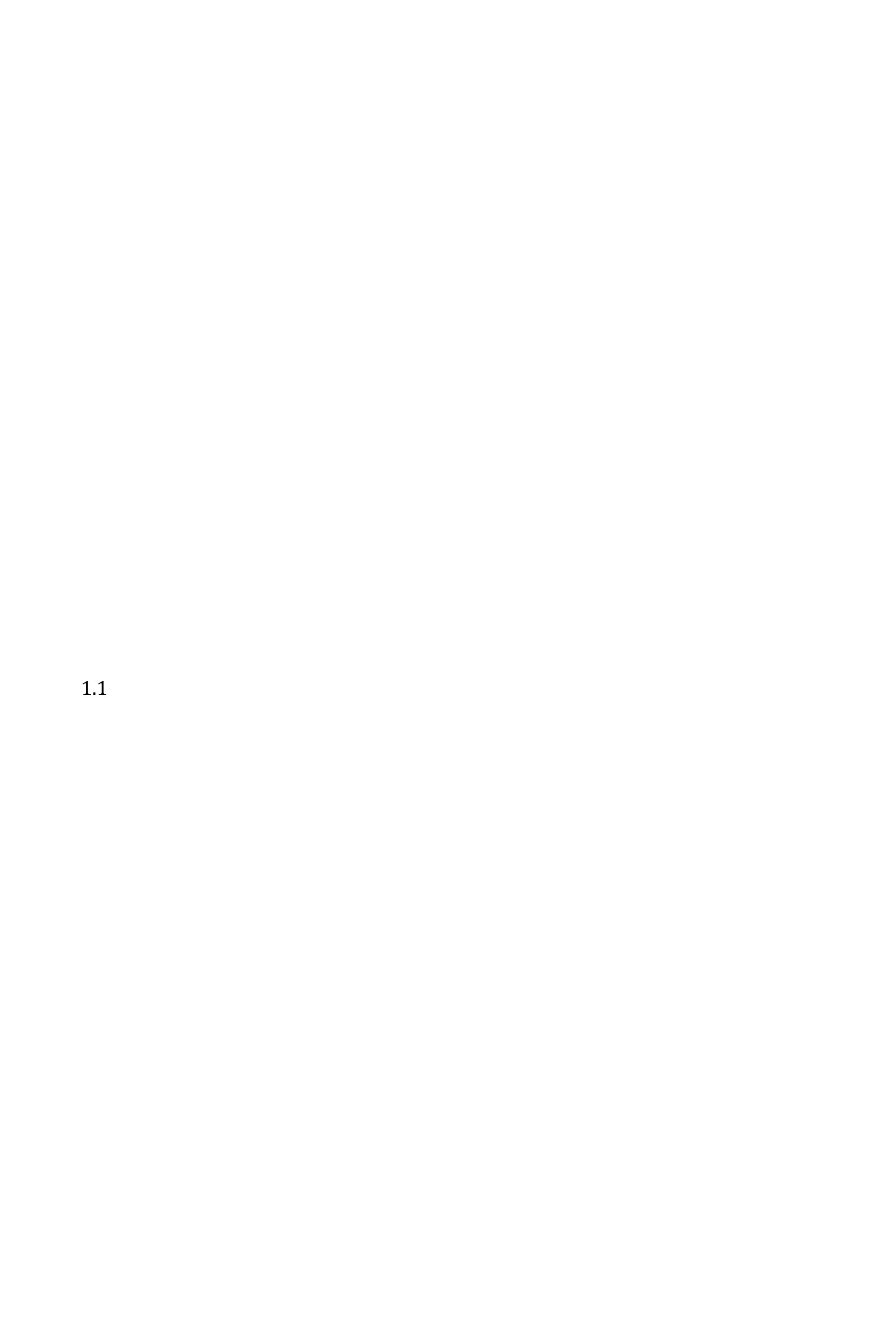
3. Trip plan request with OD text input;

4. Push Notification subscribe by confirming the trip;

5. Push Notification triggered by pre-defined events, eventually by IDTO algorithms;

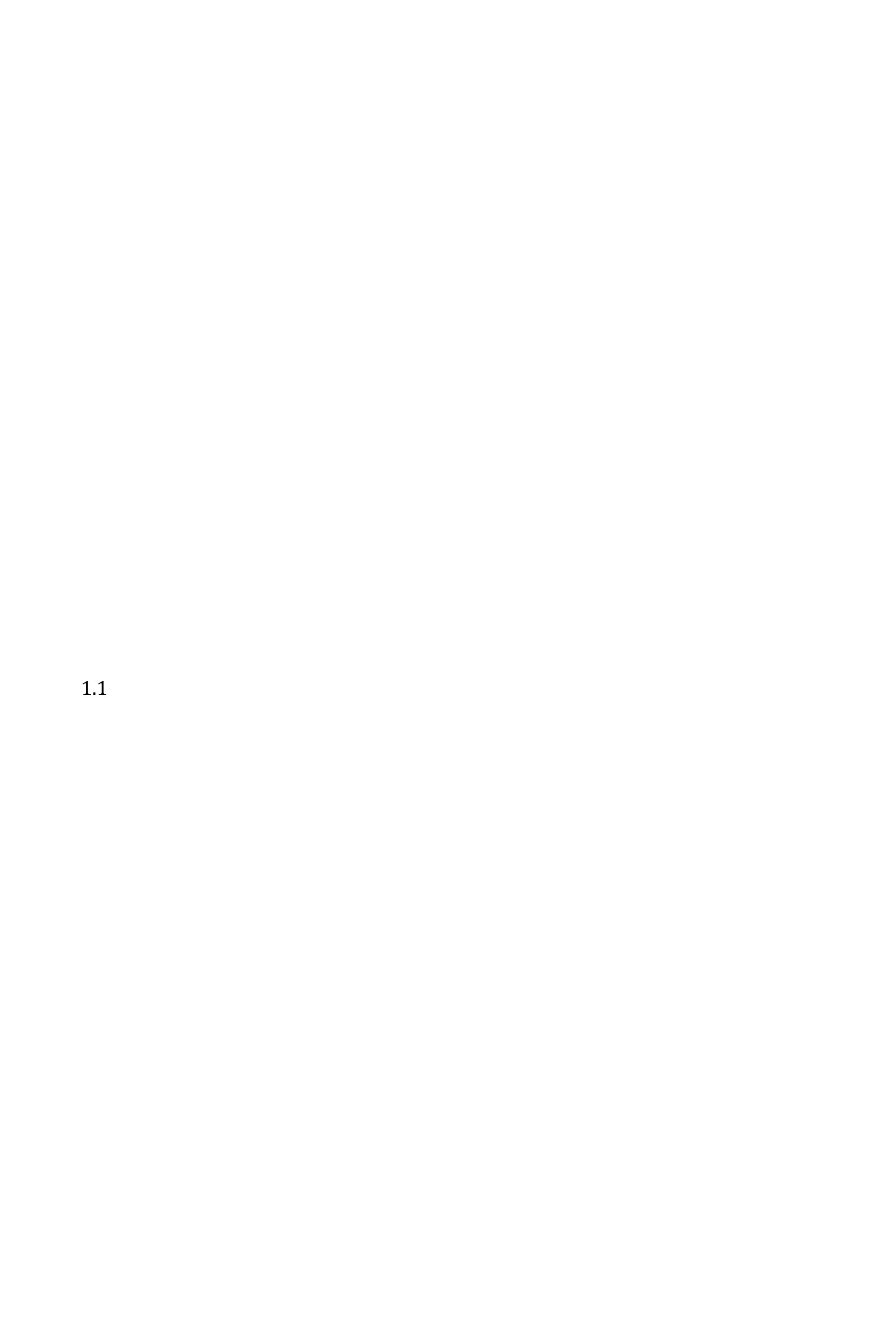
6. Send user’s real-time location to server.

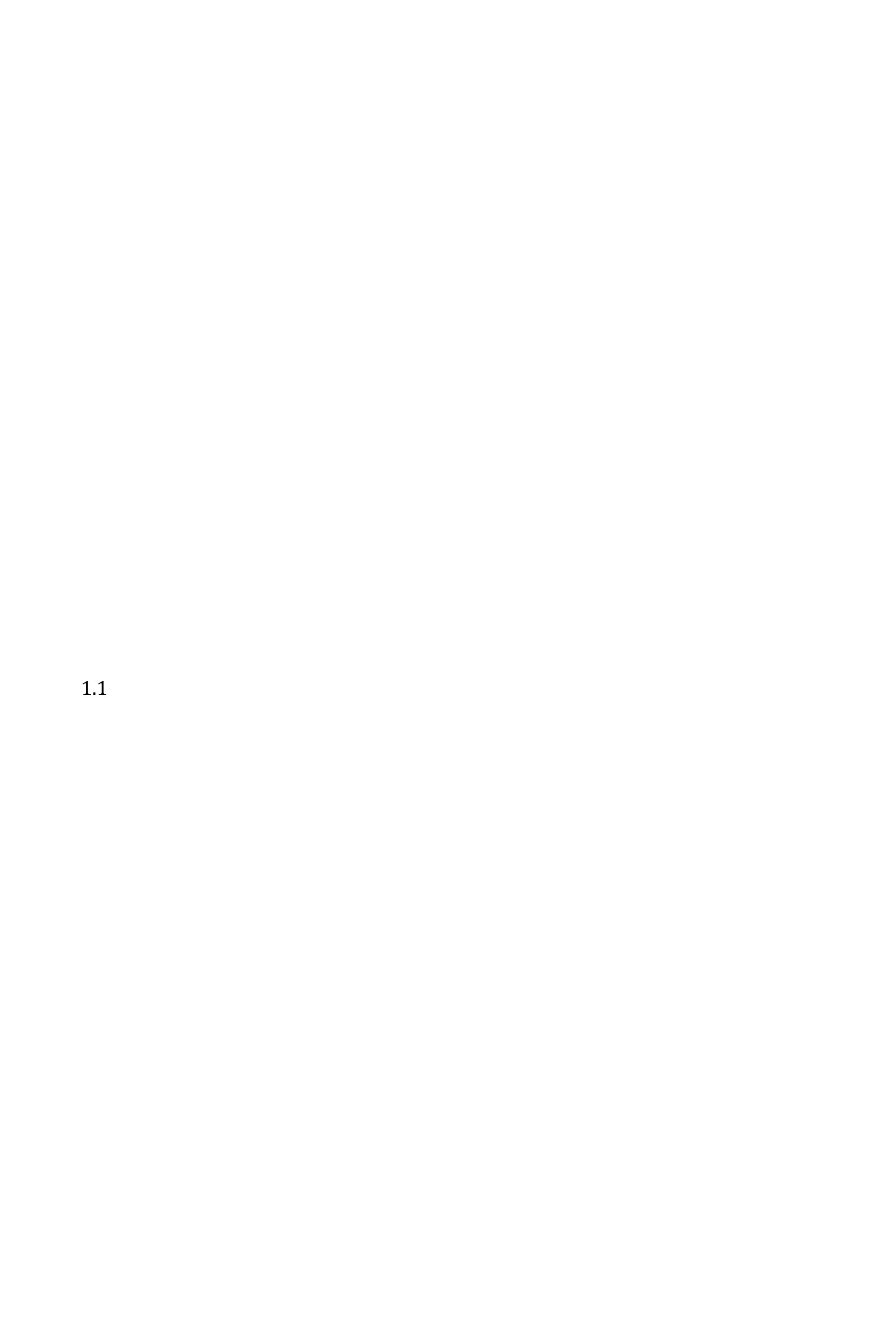
* Processing Flow Chart of Current Application

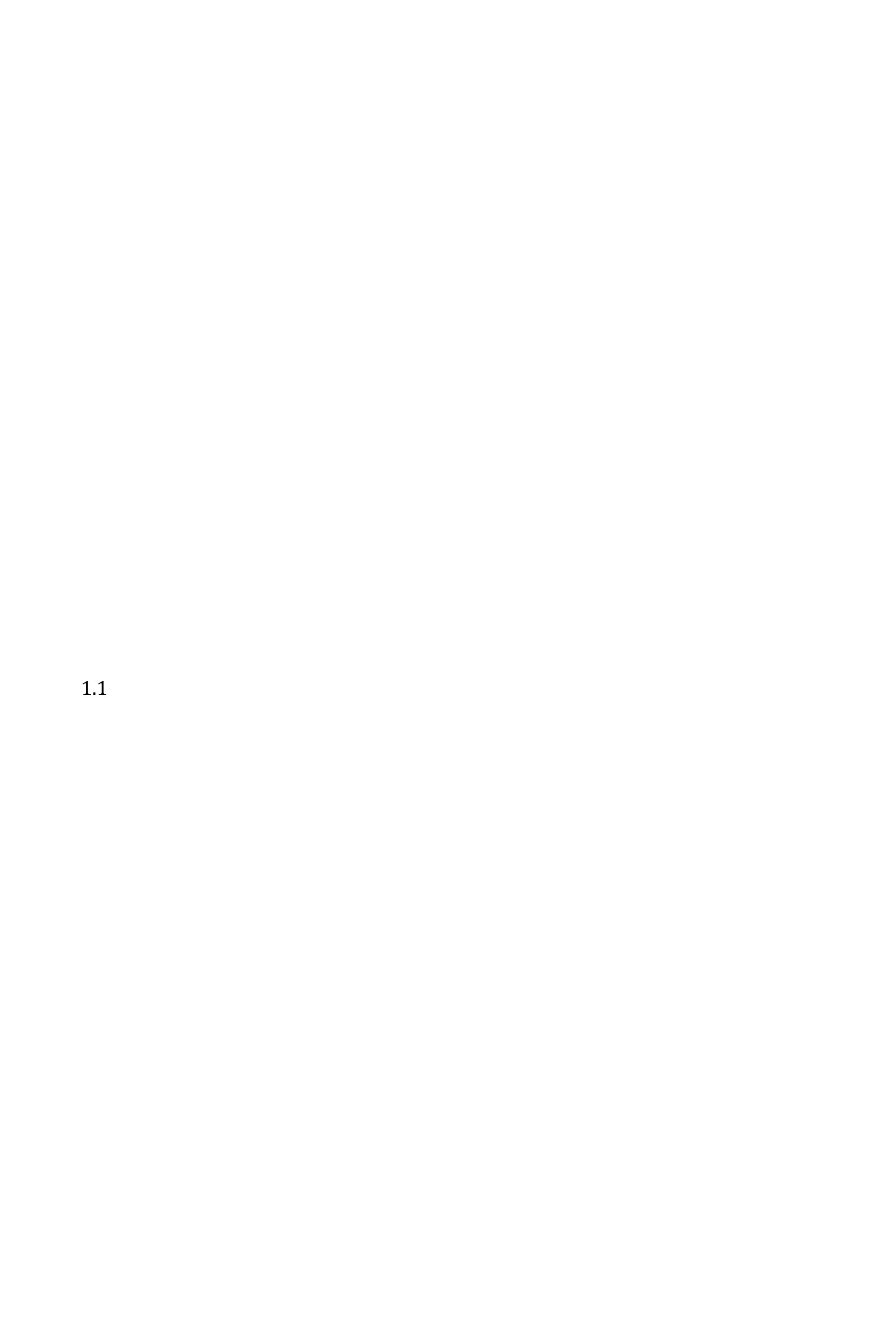
1.2

AWS Server & Database

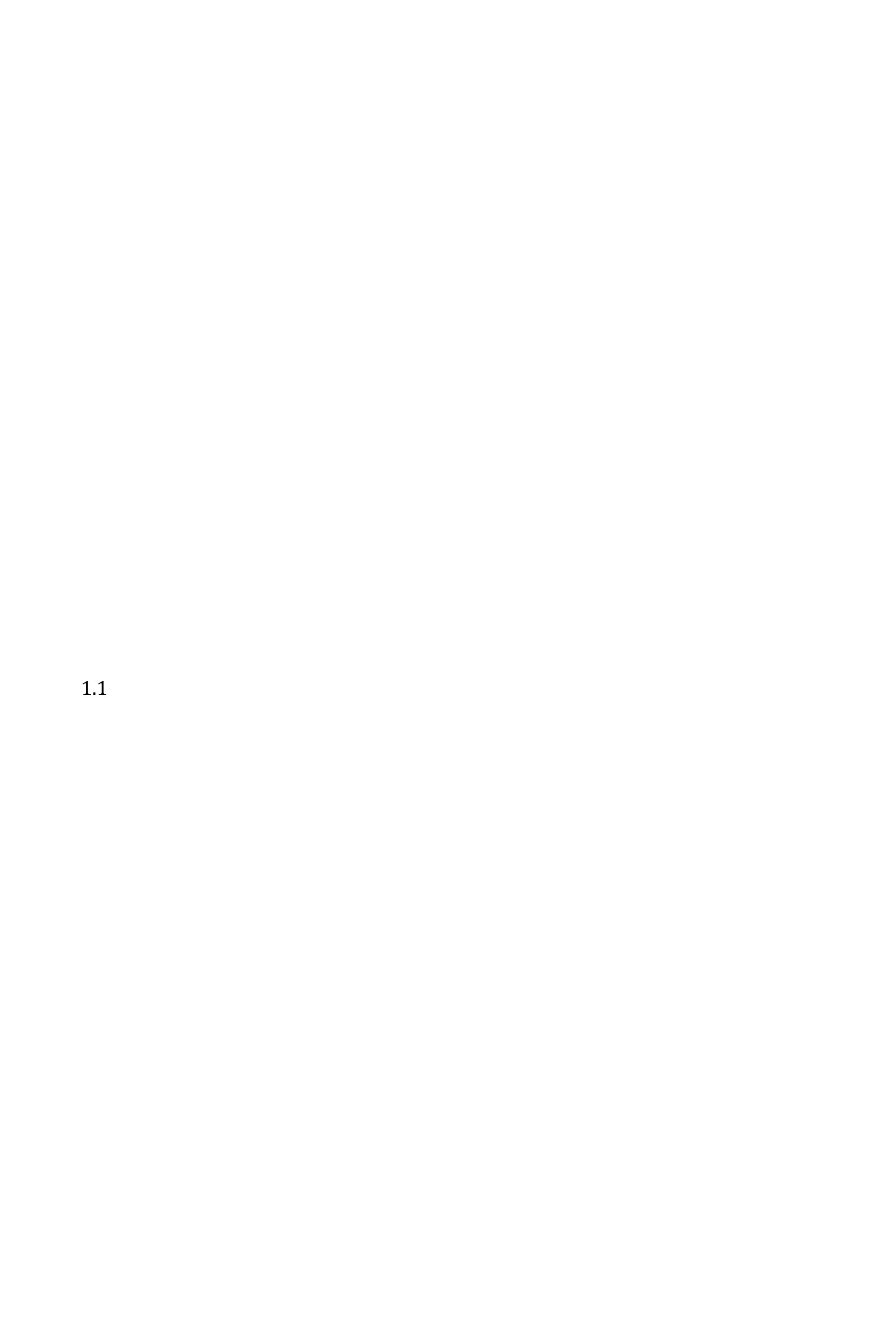
Google Trip Planner

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2.2

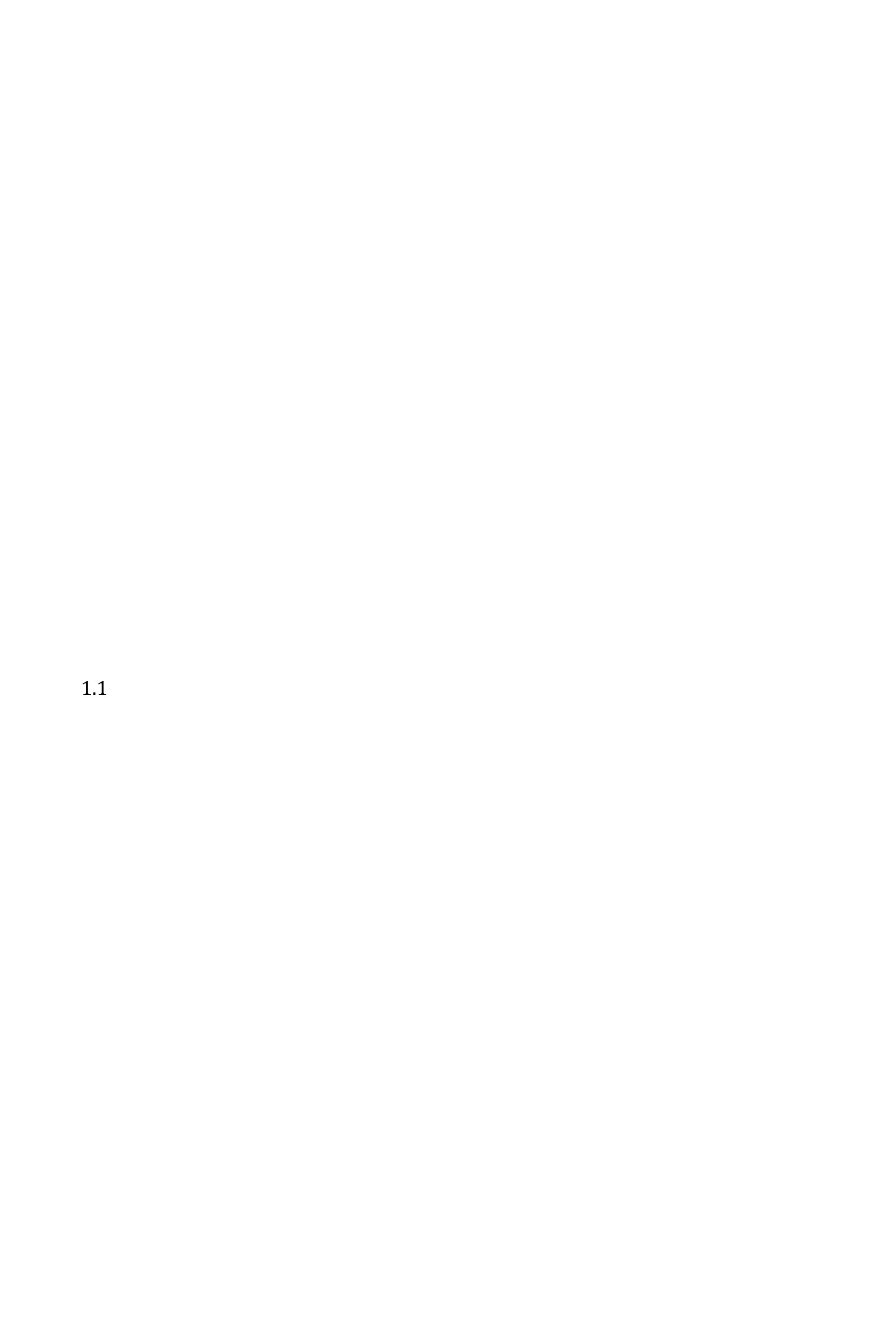
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Google Push Notification Server

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2.1

1) 1.1 Sign in to get the archived trip information

1.2 request to Google Direction API and get the trip information

2) 2.1 request to Google Push Notification Server and get the (service) token

2.2 send token to server

3) 3.1 Server (algorithm) trigger the Notification event using the token

3.2 Notification pushed to Mobile end

Part II: **User Interface of Dispatch Center Application**

* Essential functions:

1. Receive the Dynamic Operation (connection protection &) request sent from the server;

2. Manage and graphically list the requests with different status: “in queue”, “processing”, “rejected”, “finished”, “overdue”;

3. Pop up the current service request in dialog window and show buttons of “approve” or “reject” for dispatcher’s response.

4. Send the result of request back to the server.

* To do list …

GUI design;

Request status transition design;

Communication messages definition.