* 1. Functional Requirements

1. **[G1] Allow a Guest to create a registered Travlendar+ account.**
   * The system must ask the user to provide credentials.
   * The system must require a valid email address and password or a link with an existing Facebook / Google account;
   * The system must check that the provided email/account is not already in use from a different Travlendar+ account.
2. **[G2] Allow an User to log in into his Travlendar+ account.**
   * The user must be able to insert his credentials.
   * The system must be able to check the correctness of the data.
   * The system must let the user log in only if data provided are correct.
3. **[G3] Allow an User to insert an appointment into his calendar.**
   * The system must be able to pick a chosen day from the overview of his calendar.
   * The system must ask the user to provide all information needed for the creation of a new appointment, such as place and time of start and overall duration.
   * The system must check that all required fields are filled out.
   * The system must check if the appointment overlaps with other events and must eventually notify it to the user.
   * The user must confirm the creation.
   * The system must save the new appointment in memory and the calendar must be updated.
4. **[G4] Allow an User to delete an existing appointment from his calendar.**
   * The user must be able to select a specific appointment in his calendar.
   * The user must be able to select the option of deleting the appointment.
   * The user must confirm the deletion.
   * The system must remove the selected appointment from the memory and cancel every alert related to it.
   * Deleting process is not reversible.
5. **[G5] Allow an User to edit an existing appointment in his calendar.**
   * The user must be able to select a specific appointment in his calendar.
   * The system must give the user access to all details of the selected appointment and the user must be allowed to edit the information needed.
   * The system must check if the appointment now overlaps with other events and must eventually notify it to the user.
   * The user must confirm the modifications.
   * The system must save the changes and must consequently update the calendar.
6. **[G6] Allow an User to view his appointments.**
   * The user must be logged into the system.
   * The system must be able to provide the user with an overview of his calendar and the user must be able to view all appointments fixed in a certain period of time.
   * The user must be able to switch between different possible calendar, such as daily calendar, weekly calendar and monthly calendar.
7. **[G7] Allow an User to view his Daily Schedule**
   * The user must be logged into the system.
   * The user must be able to select a chosen day from his calendar.
   * The system must be able to provide detailed information about the scheduled travels for the chosen day, showing the trace route and the estimated time required from each movement.
   * The system must be able to choose a route between the possible travel alternatives according to the preferences expressed in the user profile settings.
8. **[G8] Allow an User to navigate and choose between different travel alternatives.**
   * The user must be able to check the daily schedule of a chosen day and select a chosen travel.
   * The system must be able to provide the user with an overview of the possible travel alternatives for the chosen travel, specifying all details for each one.
   * The user must be able to filter the alternatives according to defined parameters, such as time of travelling or overall cost.
   * The user must be able to choose the best travel option between the alternatives provided by the system, according to his preferences.
   * The system must update the daily schedule according to the travel option chosen by the user and the user must be able to see the new updated schedule.
   * The user must confirm the choice.
   * The system must remember the choice made by the user and save the information in memory.
   * The daily schedule must be updated for the next view.
9. **[G9] Allow an User to manage alerts for each appointment.**
   * The user must be creating a new appointment or editing an existing one.
   * The system must give the user the possibility of adding an alert for the chosen appointment.
   * In case of acceptance, the user must be able to choose a desired interval of time for the warning alert.
   * The user must confirm the creation and the system must save the insertion in the memory.
   * The user must be able to modify or remove the inserted alert when needed.
   * In case of modification, the user must confirm the modification and the system must save all changes.
10. **[G10] Allow an User to manage his travel preferences.**
    * The user must be logged into the system.
    * The user must be able to access the preferences panel of his account.
    * The system must give the user the possibility of setting various preferences, such as owned and preferred travel means, address of Home and other general travel preferences.
    * The user must be able to edit the provided preferences when needed.
11. **[G11] Allow an User to buy public transportation tickets.**
    * The user must be able to check the daily schedule of a chosen day and select a chosen travel.
    * The system must give to the user the possibility of buying the ticket for the selected travel through an external public transportation service.
    * The system must save a copy of the bought tickets and the user must be able to view them when needed.