Project assignment for the course:

Mobile Applications [MA]
Computing and Control Engineering - 2023/2024

Event Planner

Application Purpose

Event Planner is a mobile Android application designed for organizing events such as graduation parties, birthdays, weddings, baby showers, christenings, conferences, team-building activities, and more.

The application allows event organizers to create and manage their events, plan budgets, and find services, products, and packages such as restaurants, accommodation, photography, venue lighting, hall decorations, hairstylists, cakes, and catering based on event details like type, location, and date. Organizers can communicate with service and product providers, make reservations for services or packages, or mark products as purchased. They also have access to detailed information, ratings, and reviews for each provider.

Service and product providers can manage their services, products, and packages, create and update pricing lists, and oversee their team of employees responsible for specific services. They can also set working hours, maintain an availability calendar, manage reservations, and add additional details such as location and descriptions. The application ensures a seamless event planning experience by simplifying organization, enhancing communication between organizers and providers, and optimizing service and product management.

User Roles in the Application

- **Unauthenticated User (UU):**
    - can browse all services, products, and packages.,
    - can view all information about services, products, and packages,
    - can view all information about service and product providers (SPP),
    - can register an account.

- **Event Organizer (EO):**
    - has an account and can log into the system,
    - can browse all services, products, and packages,
    - can view all information about services, products, and packages
    - can view all information about service and product providers (SPP),
    - can communicate with SPP owners (SPP-O) and employees (SPP-E),
    - can make reservations for services and packages,
    - can leave comments and ratings for provided services,
    - can plan their event (budget planning, creating an event agenda, guest list, etc.),
    - can mark favorite services, products, and packages,
    - and more...

- **Service and Product Provider (SPP):** - Represents a company, agency, store, or organization offering services, products, and packages for different types of events. It includes two roles:

- **Owner (SPP - O):**
  - can register their company, agency, store, or organization (SPP),
  - can manage SPP information (enter categories for products and services, specify event types for which services/products/packages are offered, add location, description, contact details, etc.),
  - can register and manage employees,
  - can manage their account and update personal information,
  - can manage working hours and availability calendars for all employees,
  - can manage their services, products, and packages,
  - can set and update pricing for services, products, and packages,
  - can view reservations and service history for each employee,
  - can communicate with event organizers (EO),
  - can accept or reject reservations for services or packages,
  - can report EO users, comments, and ratings.
- **Employee (SPP - E):**
  - can manage their account and update personal information,
  - can manage their availability calendar (manually entering scheduled appointments),
  - can view their reservations and service history,
  - can communicate with event organizers (EO),
  - can accept or reject reservations for services or packages.

- **Administrator (A):**
  - oversees the registration of new service and product providers (SPP),
  - manages service and product categories and subcategories,
  - manages event types,
  - can review user reports regarding other users, comments, and ratings,
  - can delete reported comments and ratings

Functional Requirements

1. Event Organizer Registration (Role:UU)

If the user does not have an account in the system, they must create one. The user selects whether to register as an Event Organizer (EO) or Service and Product Provider Owner (SPP-O).

The OD registration process includes entering the email address, password, first name, last name, profile picture (optional), address, and phone number. The password is entered in two fields to prevent errors when selecting the password.

The registration process also involves sending an email to the provided address with an activation link for the OD account. The OD cannot log into the application until their account is activated by visiting the link received in the email. The activation link is valid for 24 hours, and if the OD does not activate their account within this time frame, they must repeat the entire registration process.

2. Registration of service and product providers - owner (roles: UU, A)

If the user does not have an account in the system, they must create one. The user chooses whether to register as an EO (Event Organizer) or a SPP-O (Service/Product Provider Owner). The registration for SPP - O includes:

- Entering the owner's information: email, password, first name, last name, home address, phone number, profile picture (optional). The password is entered in two fields to reduce the likelihood of errors during password selection.
- Entering the company/agency/store/organization information: email, name, address, phone number, description "about the company", photos of the SPP (optional).
- Entering the service and product categories offered by the SPP. It is possible to enter multiple categories, but at least one must be selected.
- Entering the types of events for which they offer specific products/services/packages (optional). The user can select 0 or more event types.
- Entering the company's working hours for each day of the week (e.g., Mon 8-13h, Tue 8-13h, Wed 8-20h, Thu 8-20h, Fri 8-20h, Sat closed, Sun closed). The company's working hours apply to all employees for the future, unless otherwise specified during the employee's registration.

The registration includes sending a request for registration to the system administrator (and the administrator should be notified via a notification).

3. Review and response to SPP-O registration request (roles: A)

Administrators can:

- Review the list of registration requests from SPP-O.
- Search the registration requests by company name, owner's first and last name, company or owner email address.
- Filter the registration requests by the time they were received, by the service/product category offered, or by event type.
- Review detailed information about the registration request.
- Approve or reject the registration request.
  - If the registration request is rejected, the administrator must provide a reason for the rejection. The rejection information will be sent to the SPP-O via email.
  - If the registration request is approved, an activation link is sent to the SPP-O's email, valid for 24 hours. The SPP-O profile becomes active upon visiting the link within the valid period.
  - If the account is not activated by visiting the link within 24 hours, the entire registration process must be repeated.

4. System Login (roles: UU)

If the user has an account on the system (EO, SPP-O, SPP-E, A) and it is active, they have the ability to log in. The login process is done by entering the email and password.

If the user enters an incorrect password or email, an error message should be displayed on the screen. After a successful login, the user should receive a token, which needs to be saved until the user logs out. Once logged out, the token is deleted, and the user has the option to log in again.

5. Registration of Service and Product Providers - Employees (roles: SPP-E)

After successfully logging in to the system, SPP-O has the ability to register other employees (within the employee management page - requirement 6).

On the employee registration page, SPP-O enters the following information about the employee: email, password (2 fields), first name, last name, address, phone number, profile picture (optional). It should be possible to enter the employee's working hours for each day of the week (optional). If not entered, the company's working hours will apply to the employee. If entered, the employee's working hours will be applied for the future.

After successful registration, the employee will receive an activation link on their email that is valid for 24 hours.

By clicking on the link, the employee's account (SPP-E) becomes active, and they can log in to the system with the password set by SPP-O (which can later be changed).

It should be noted that the activation link is valid for 24 hours, and if the employee (SPP-E) does not activate the account by visiting the link within those 24 hours, the account will remain inactive. In this case, SPP-O will need to activate the profile (requirement 6 - activation and deactivation of employee accounts). After activation, a new activation link will be sent, valid for 24 hours.

6. Employee Management (roles: SPP-O)

After successfully logging in to the system, SPP-O has the ability to:
- View the list of employees in their company/organization, etc.
- Search for employees by first name, last name, or email address,
- View detailed information about each employee (first name, last name, email, working hours, address, phone number, profile picture, services performed, working hours, availability calendar),
- Change the employee's working hours and availability calendar (requirement 7),
- Register a new employee through the registration form (requirement 5)

- Activate or deactivate employee accounts. If SPP-O deactivates an account, the employee (SPP-E) will no longer be able to log in to the system with that account. When an account is deactivated, SPP-O can reactivate it, and an activation link will be sent to the employee's email address, valid for 24 hours..

7. Managing Working Hours and Availability Calendar (roles: SPP-E, SPP-O)

Working Hours:

SPP-O has the ability to view and modify the working hours for each employee. When making changes, SPP-O must enter the start and end date of the period for which the working hours apply, specify the employee, and set the working hours for each day of the week. Working hours can be modified only for periods when the employee does not have any reserved services/packages.

SPP-E can view their own working hours as entered by SPP-O.

Employee Availability Calendar:

SPP-O:
- The owner can view a list of events for each employee for a specific week. Each event includes a name, the day it's associated with, the duration (start and end time), and the type (reserved or busy).
- The owner can add new events for each employee, marking them as "busy" during the working day, as long as the event duration does not overlap with any other existing event.
- If the owner adds an event, the employee will be notified through a notification.

SPP-E:
- Each employee has their own list of events. Each event includes a name, the day it's associated with, the duration (start and end time), and the type (reserved or busy).
- Employees can view all their events for the selected week and can add new events marked as "busy" during the working day, provided that the event duration does not overlap with any other existing event.
- If an employee adds an event, the owner will be notified through a notification.

An event of type "reserved" is automatically created when a reservation for a specific service is confirmed by the employee.

8. Account Management (Roles: EO, SPP-O, SPP-E-Z)

Each user has the ability to view and manage their account. OD (Event

Organizer):

- Can view all personal information: name, surname, email, profile picture, etc.
- Can update all personal information except the email address. In addition to personal data, the user can change their password, requiring the entry of the old password and the new password twice.
- If there are no reserved services, the user can deactivate their account, after which they will no longer be able to log in to the system.

SPP-E (Service/Product Provider Employee):

- Can view all personal information: name, surname, email, profile picture, etc.
- Can update all personal information except the email address. In addition to personal data, the user can change their password, requiring the entry of the old password and the new password twice.
- Can view their work schedule and can view and add events to their availability calendar (as per [requirement 7](#)).

SPP-O (Service/Product Provider Owner)::

- Company Information:
  - Can view all information about the company: name, description, location, etc.
  - Can update and add: description, address, phone number, photos, etc. The company name and email cannot be changed.
  - Can view all categories of services/products the company offers.
  - Can view and modify the types of events for which services/products are offered. Can choose 0 or more event types.
- Owner Information:
  - Can view all information about themselves: name, surname, email, etc.
  - Can change all personal data except the email address. Besides personal data, they can change their password by entering the old password and the new password twice.
- If there are no reserved services/packages within the company, SPP-O can deactivate their profile. When SPP-O is deactivated, all associated SPP-E profiles are also deactivated, and all products/services/packages offered by that SPP become invisible. Re-activation will not be possible.

9. Managing Service/Product Categories and Subcategories (Roles: A)

Managing categories and subcategories involves creating, modifying, and deleting service/product categories or subcategories. The admin can create new service/product categories and subcategories. When creating, the admin enters the name and description of the category/subcategory. A subcategory must be created within a category and has a type (service or product).

The admin can modify a category or subcategory. It is necessary to notify all SPP-Ousers via a notification when the name of a category or subcategory is changed.

The admin can delete a category or subcategory if no services/products have been associated with it by SPP-O users.

Administrator može da pregleda predloge za kreiranje novih potkategorija proizvoda / usluga ([zahtev 11](#) i [zahtev 12](#)). Admin može da odobri ili izmeni predlog i samim tim se kreira nova potkategorija koja je dostupna svima i kreira se novi proizvod / usluga i obaveštava vlasnik notifikacijom o tome. Admin može da izabere već postojeću potkategoriju za taj proizvod / uslugu i tim se kreira novi proizvod / usluga sa tom postojećom potkategorijom i obaveštava vlasnik notifikacijom o tome.

The admin can review proposals for creating new product/service subcategories ([requirement 11](#) i [requirement 12).](#) The admin can approve or modify a proposal, which will create a new subcategory available to all, and a new product/service will be created. The owner is notified about this. The admin can choose an existing subcategory for the product/service, thus creating a new product/service with that existing subcategory, and the owner is notified about this.

10.   Managing Event Types (Roles: A)

The admin can define, modify, and delete different event types as needed. For each event type, the admin can add a name, description, and suggested subcategories of services and products. The suggested subcategories will be displayed when creating an event of the selected type, where the event organizer (OD) only needs to input the given suggestions ([requirement 15](#)).

Modifying an event type: It is only possible to modify the description and the suggested subcategories of services and products.

Deleting an event type is not possible. The event type can only be activated or deactivated. A deactivated event type will not be displayed to the event organizer (EO) when creating new events.

11.   Managing Products (Roles: SPP-O, SPP-E)

SPP-E:

- Has the ability to view the list of products offered by SPP.
- Has the ability to search for products by name.
- Has the ability to filter products by category, subcategory, event type, price, availability, and description.

SPP-O:

- Has the ability to view the list of products offered by SPP..
- Has the ability to search for products by name.
- Has the ability to filter products by category, subcategory, event type, price, availability, and description.
- Has the ability to create a new product, which includes:
  - Product category and subcategory (from the selected categories of SPP for which they are registered). If an appropriate subcategory for the product does not exist, SPP-O can suggest a new subcategory within the selected category during the product creation process. In this case, when clicking "submit" on the form, a new product is not created; instead, it is set to "pending" status, and a notification is sent to the administrator about the created subcategory proposal.
  - Name, description, price, discount, images,

- ○ Event types linked to the product (0 or more),
- ○ Visibility (whether EO can see the product) and availability (whether the product is available for purchase) for end users.
- Can modify all product information except for the category. Can make the product invisible and/or unavailable for end users. Changes to the product apply only to future purchases, while previous purchases retain the product's original status. Therefore, it is necessary to keep a history of product changes..
- Can completely delete a product with confirmation. Logical deletion of the product (true/false field).

12.   Service Management (Roles: SPP-O, SPP-E)

SPP-E:

- Has the ability to view the list of services offered by SPP.
- Has the ability to search for services by name.
- Has the ability to filter services by category, subcategory, event type, price, availability, and the employee performing the service.

SPP-O:

- Has the ability to view the list of services offered by SPP.
- Has the ability to search for services by name.
- Has the ability to filter services by category, subcategory, event type, price, availability, and the employee performing the service.
- Has the ability to create a new service that include:
  - ○ Category and subcategory of the service (from the selected categories of SPP for which it is registered). If there is no suitable subcategory for the service, SPP-V can propose a new subcategory within the selected category during the creation of the service. In this case, upon clicking "submit" on the form, the service is not created immediately but is set to "pending" and a notification is sent to the administrator regarding the proposed subcategory for the service..
  - ○ Name, description, specifications, price, discount, images,
  - ○ Event types for which the service can be applied (0 or more)
  - ○ Visibility (whether EO can see the service) and availability (whether the service is available for reservation) for end users.
  - ○ List of employees in SPP who provide the service (at least one employee)
  - ○ Service duration (e.g., 1h, 2h, 15min) or minimum and maximum engagement time for the service (min 1h, max 5h)
  - ○ Booking deadline (how far in advance the service can be reserved) and cancellation deadline (booking cancellation policy),
  - ○ Defining the confirmation method for reservations:
    - ▪ Automatic – services that have a scheduled time.
    - ▪ Manual – services that require engagement or services that have a scheduled time.

- Has the ability to modify all service information. It is not possible to change the service category. Can make the service invisible and/or unavailable to end users. Changes made to the service will apply only to future bookings, while past bookings will retain the previous service status. Therefore, the service modification history must be preserved.
- Can delete a service only if there are no future bookings, with a confirmation of consent. Logical deletion of services (true/false field).

13. Managing Packages (Roles: SPP-O, SPP-E)

A package represents a combination of products and/or services. A package can consist only of products, can consist of both products and services, or only of services.

SPP-E:

- Has the ability to view the list of packages offered by SPP..
- Has the ability to search for packages by package name, product or service name included in the package.
- Has the ability to filter packages by category, subcategory, event type, and price.

SPP-O:

- Has the ability to view the list of packages offered by SPP.
- Has the ability to search for packages by package name, product name, or service name included in the package.
- Has the ability to filter packages by category, subcategory, event type, and price.
- The owner can create a new package that includes:
  - Name, description, price (the sum of the prices for the products and services in the package), discount (defined at the package level), images (a list of images of the products and services in the package)Visibility and availability of the package for end-users,
  - Category (from the selected SPP categories to which the owner is registered),
  - Can select products and/or services from the selected category and add them to the package (chosen from existing products and services within the SPP's selected category),
  - A list of subcategories created based on the selected products and services (subcategories of selected products or services are added to the list)
  - Event types for which the package can apply = the union of all event types from the products and services in the package,
  - Package reservation deadline (how far in advance the package can be reserved) = the shortest reservation deadline from all the services included in the package,
  - Package cancellation deadline = the shortest cancellation deadline for any service in the package,
  - Definition of the package reservation confirmation method (automatic / manual): if there is at least one service in the package that requires reservation, the entire package is reserved 'manually', with no automatic option,

- The reservation deadline, cancellation deadline, and reservation confirmation method for the package are calculated only if there is at least one service in the package. If no services are included, these details are not necessary.
- The owner can edit all information about the package, except the category it belongs to. They can change the contents of the package (add or remove products or services). They can make the package invisible and/or unavailable to end-users. The modified package applies only to future reservations, and the previous state of the package remains for all existing reservations. Therefore, it is necessary to keep a history of package modifications.
- The owner can delete the package only if there are no active reservations, with confirmation of agreement. Logical deletion of the package (true/false field).

14. Pricing List (Roles: SPP-O, SPP-E)

SPP-O and SPP-E have access to the pricing list for all products, services, and packages offered by SPP.

The pricing list should include a list of products, services, and packages, where each product, service, or package has a serial number, name, price, discount, and price with discount.

SPP-O should be able to modify the prices and discounts for products and services in the pricing list, and only modify the discount for packages, with the package price changing based on the modified price of the service/product. Care should be taken with the rules for modifying products, services, and packages (requirement 11, requirement 12, requirement 13).

SPP-O and SPP-E should have the option to export the pricing list to PDF and download the PDF to their phone.

15. Event Creation (Roles: EO)

EO can create a new event that includes:

- Event type (a list of event types entered by the admin) or choose "other" if the event type does not exist. For the event type selected by OD, a suggestion for categories and subcategories of products and services for that event should be displayed. OD cannot reserve a service if there is no event for which the service is reserved.

Event name, event description, maximum number of participants, privacy rules (closed type / open type), location restrictions (event location and maximum number of kilometers), time restrictions (exact date of the event).

Additionally, OD can define the event agenda (requirement 16), guest list (requirement 17) and plan the event budget (requirement 18).

16. Event Agenda Creation (Roles: EO)

For each event, OD can create an agenda, i.e., a schedule for each activity within the event. Each activity includes a name, description, start time, end time, and location.

The system should allow generating a PDF with the event agenda, which can be downloaded to a mobile device.

17. Creating Guest List for an Event (Role: EO)

For each individual event, EO can create a guest list. Guests can be added or removed from the list. Additionally, information for each guest can be edited.

The following information is required:
- Guest's full name
- Age group: 0-3, 3-10, 10-18, 18-30, 30-50, 50-70, 70+
- Whether they were invited: yes/no
- Whether they accepted the invitation: yes/no
- Special requests for the guest: vegan, vegetarian

The system should allow generating a PDF of the guest list, which can be downloaded to a mobile device.

18. Budget Planning for an Event (Role: EO)

EO can create a budget plan for each event.

For the type of event that EO selects when creating the event, a proposal of product and service categories and subcategories for that event should be displayed (requirement 15).

Based on the proposal, EO can create a list of items needed for the planned event. For each item added to the list, a subcategory is chosen from the list of all product and service subcategories, and a planned amount is entered for that item.

The system will automatically calculate the planned maximum budget for the entire event based on the items listed.

If a service is successfully reserved, it will automatically be assigned to the appropriate subcategory within the planned budget, based on the service's subcategory..

If a planned product is found, it can be marked as purchased for the event (requirement 21) and it will automatically be assigned to the appropriate product subcategory in the planned budget.

If there is no such subcategory in the planned budget, a new item will be added to the budget for that subcategory, and the maximum amount for that item will be set to 0 din.

EO can modify the planned amount for each item and add new items for new subcategories of products/services.

EO can delete an item from the budget only if no services have been reserved or products have been purchased for that subcategory..

The system should allow for the details of products/services in the budget to be viewed by clicking the "details" button.

19. Searching and Filtering Services / Products / Packages (Roles: UU, EO, SPP, A)

All users can search and filter services/products/packages by name, location, event type, category, subcategory, service provider name, price range, date range (for services), and availability. The display can be filtered to show only products, only services, or only packages.

OD can select their event, and the services/products/packages will be filtered based on the information provided for that event, such as date, location, event type, planned subcategories of services/products, etc.

By selecting a desired service/product/package, detailed information will be displayed (requirement 20).

If a product/service/package is marked as invisible, it will not be displayed to end users (UU and OD).

For each product/service/package, it is possible to mark it as a favorite, which will place it in the list of favorite products/services/packages (requirement 32).

20. Product / Service / Package Details (Roles: UU, EO, SPP, A)

It is necessary to allow all users to view information about a product/service/package..

If a product/service/package is marked as invisible, it should not be displayed to end users (UU and OD).

If a product/service/package is marked as unavailable, an information message should display whether it is available or currently unavailable. Unavailable services/packages cannot be reserved. Unavailable products cannot be purchased.

For package details, it is essential to display detailed information about each product/service within the package.

On the product/service/package details page, provide a link to the SPP's information page. Display company details, allow viewing of the rating and comments for that company, and provide the option to apply for the SPP (requirement 29).

For each product/service/package, it should be possible to mark it as a favorite, which will place it in the list of favorite products/services/packages (requirement 32).

EO can select the event for which the product/service/package is being sought, if they have not already specified it during the search ([requirement 19)](#).

It is possible to initiate communication with SPP-O if it concerns a product or with SPP-E if it concerns a service ([requirement 25](#)).

For available services/service packages, it is possible to make a reservation for the service/package ([requirement 22](#) i [requirement 23](#)). For available products/product packages, it is possible to purchase the product ([requirement 21](#)).

21. Marking Product Purchase (Roles: EO)

From the product details page, EO can mark the purchase of a product for the selected event. In this case, the product is automatically added to the budget (spent) under the relevant product subcategory.

The details of the purchase are negotiated with SPP-O (payment, collection, etc.) through communication ([requirement 24](#)).

22. Service Reservation (Roles: EO)

From the service details page, EO can reserve a service for the selected event if the service is available..

When making a reservation, EO selects an available employee for the chosen service, and then the calendar of availability for that service is displayed..

The service availability calendar is determined based on:

- The date of the selected event,
- Reservation and cancellation deadlines for the service,
- Working hours and the availability calendar of the selected SPP-E performing the service,
- The duration of the service or the minimum and maximum engagement time.

EO must enter the desired time: from/to. If the service has a scheduled time: the "from" field is entered, and the "to" field is automatically calculated based on the duration of the appointment. If the service has a minimum and maximum engagement time, both "from" and "to" fields must be entered, keeping in mind the minimum and maximum engagement and available time slots. Proper validation of the fields must be carried out based on the availability calendar.

If EO has entered all the necessary reservation details, they can confirm the reservation by clicking the button. Upon reserving the service, a notification will be sent to the selected employee.

Event organizers will receive a notification about the reservation 1 hour before the scheduled appointment..

23.   Package Reservation (Role: EO)

If the package includes services, the selection of SPP-E (service provider) and the schedule for each service must be made separately ([requirement 22](#)).

Once EO has entered all the necessary details (selected the SPP-E and schedule for each service), they can confirm the package reservation by clicking the button..

Acceptance and rejection of services within the package must be done manually (regardless of the method used to accept individual services).

By reserving the package, notifications will be sent to all selected SPP-E, and reservations will be created for each service in the package (with an indication that they are part of the package). If the package consists only of products, each product will automatically be marked as purchased ([requirement 21](#)).

Event organizers will receive a notification about the reservation 1 hour before the scheduled time.

24.   Service Reservation Overview (Roles: SPP, EO)

SPP-O is provided with an overview of all reservations, while SPP-E and EO have an overview of their specific reservations..

Each reservation can have the following status: new, canceled by SPP, canceled by OD, canceled by admin, accepted, completed. Each service reservation should indicate whether the service is part of a package. If it is part of a package, the cancellation deadline should be based on the package. Services from the same package should be displayed together.

Reservations can be filtered by: new, canceled by SPP, canceled by OD, canceled by admin, accepted, completed.

EO:
- Can view completed, new, accepted, and canceled service reservations or services from packages.
- Can cancel new and accepted reservations for services (respecting the cancellation deadline).
- Can cancel new and accepted reservations for packages (respecting the package cancellation deadline).
- When canceling a package reservation, all services within the package are canceled.
- Canceling reservations sends a notification to SPP-E and releases the previously occupied time slot in both SPP-E's and EO's calendars if the reservation was accepted.

SPP-O i SPP-E:
- Can view completed, new, accepted, and canceled reservations for services and services from packages (SPP-E for themselves only or SPP-O for all reservations).
- SPP-O can search by the name and surname of the person who made the reservation, by the name and surname of the employee, and by the service name. SPP-E can search by the name and surname of the person who made the reservation and by the service name

.

- If manual approval of reservations is enabled, new reservations can either be accepted or declined.
  - By accepting the reservation, the employee's time slot in the availability calendar is occupied, and it becomes unavailable for booking.
  - Declining the reservation sends a notification to EO that the reservation has not been accepted.
- SPP can cancel any reservation that has not yet been realized, and a notification will be sent to EO.
- A package reservation is considered accepted when all SPP-E accept the "manual" reservation of the service tied to that package. If the package contains products, the spent amount for each product/service in the package is automatically added to the budget for the respective subcategory of each product/service in the package.
- If one service reservation tied to a package is canceled, all other reservations within the package are canceled.

25.   Communication (Roles: EO, SPP)

EO is allowed to communicate with employees or the company owner.

The message exchange with the owner can be initiated from the company profile or the product details page.

The message exchange with employees is possible from the service details page. If there are multiple employees, EO can select an employee and send them a message.

Each message should include: sender, receiver, time sent, content, and status.

Messages with the same employee/owner are grouped together in a chat according to the time of arrival/sending.

When a message is sent, a system notification is sent to the recipient.

26.   Commenting and Rating (Role: EO)

After the realization or cancellation of reservations by SPP-E, EO can rate the company and leave a comment on the company's profile. The deadline for leaving a rating and comment is 5 days. Comments and ratings are visible to all users.

It is necessary to notify EO via a notification that they have the opportunity to leave a comment and rate the SPP. After leaving the comment and rating, notify SPP-O about it via a notification.

27.   Review and Report of Comments and Ratings (Role: SPP-O)

SPP-O can view comments and ratings for their company on their profile. Filtering of comments and ratings by date is enabled.

They are also allowed to report comments and ratings left on the company's profile. When reporting, it is necessary to specify the reason for the report, and a notification should be sent to the administrator.

28. Review of Reports and Deletion of Comments and Ratings (Role: A)

The admin can view a list of all reported comments and ratings. Information displayed includes who reported the comment and rating, the date of the report, the reason for the report, and the status (reported, accepted, rejected). A link to the SPP-O profile is provided..

The admin can accept or reject a report. If a report is rejected, a notification with the reason for rejection is sent to the SPP-O who made the report. If the report is accepted, the reported comment and rating are deleted.

29. User Reporting (Roles: EO, SPP-O)

EO can view the company profile from the service/product/package details page (requirement 20). On the company profile display, they can report the company. A reason for the report must be provided, and a notification is sent to the administrator regarding the report.

SPP-O can view a user's profile from the reservation details page and the chat with a specific user who purchases products. On the user profile display page, SPP-O can report the user. A reason for the report must be provided, and a notification is sent to the administrator regarding the report..

30. Review of Reports and User Blocking (Roles: A)

The administrator can view a list of all user reports. Information shown includes who reported whom, the date of the report, the reason for the report, and the status (reported, accepted, rejected). The admin can access the profiles of both the reporting and reported users.

The admin can accept or reject a report. If the report is rejected, a notification is sent to the user who made the report, providing the reason for rejection. If the report is accepted, the reported user is blocked, preventing them from logging into the application.

If the reported user is an EO and has active reservations, all of their reservations are automatically canceled, and notifications are sent to all SPP-E about the reservation cancellation by the admin.

If the reported user is an EO and has active reservations, all of their reservations are automatically canceled, and notifications are sent to all SPP-E about the reservation cancellation by the admin.

31. Notifications

It is necessary to display system notifications to users for each relevant event (incoming reservation, confirmed or canceled reservation, accepted company registration, etc.)

Notifications must be stored within the application and allow users to view them. Additionally, notifications should be filterable by: read, unread, and all.

A shake event should be implemented, such that each shake of the device rotates the notification display between: unread, read, and all notifications (implementing the sensor functionality).

32.   Favorite Services / Products / Packages (Roles: EO)

Allow EO to mark services/products/packages as favorites from the product/service/package search page, as well as from the details page..

EO should have a display of their list of favorite products/services/packages, from which they can view details and make reservations.

It should be possible to remove services/products/packages from the favorites list.

Non-functional Requirements

- The mobile Android application must be developed using the Java programming language.
- Use SQLite as the database and Firebase (Firestore Database / Realtime Database) for data storage
- Application settings should be stored in SharedPreferences.
- The application must be implemented using a three-layer architecture, meaning there should be a clear separation between the presentation layer, business logic, and data management.
- Time-dependent requirements should be adjusted to minutes for demonstration purposes during the defense. The time should be modified to ensure it can be effectively demonstrated.
- Pay attention to field validation in forms
- The rest of the application is up to the students. The implementation is flexible regarding the appearance, models, and display organization, etc.
- Use the built-in notification system in Android. Notifications should be stored in the database to ensure later response to incoming notifications.
- You are allowed to use any library that will speed up your development process, but you must be able to explain why and how you use it!

Requirements distributed among team members

The project is done in teams of 4 people.

	Date	Student 1	Student 2	Student 3	Student 4
KT1	06.04.2024.	1, 2, 4, 9, 10	5, 6, 7	11, 12, 13	15, 18, 19
		1, 2, 4, 9, 10	5, 6, 7, 18	11, 12, 13, 19	/
KT2	11.05.2024.	1, 2, 4, 9, 10	5, 6, 7	11, 12, 13	15, 18, 19
		1, 2, 4, 9, 10	5, 6, 7, 18	11, 12, 13, 19	/
KO	11.06.2024.	3, 21, 22, 23, 31	24, 26, 27, 28, 31	14, 29, 30, 31	8, 16, 17, 20, 25, 31, 32
		3, 21, 22, 23, 31	24, 25, 31	8, 14, 20, 31	/

For teams of three people, it is not necessary to do the following: 15, 16, 17, 26, 27, 28, 29, 30, 32.

Bodovi:
KT 1 - 10 POINTS
- Only GUI for the specified requirements in the table
- Live demonstration
- 5 minutes per team
- Attendance is mandatory

KT 2 - 15 POINTS
- Full implementation of the specified requirements in the table
- Live demonstration
- 15 minutes per team
- Attendance is mandatory

KO - 25 POINTS
- Full implementation of the specified requirements in the table
- Live demonstration
- 20 minutes per team
- Attendance is mandatory

Total 50 points (26 minutes for passing)