# Session 3

### Duration: 3.5 hours

Regardless of whether you prefer SQL Server or MySQL, for this session be sure to run the “*Session 3 start MSSQL.sql*” script to create a new **Session3** database on SQL Server that will be used by the REST API.

In this session, you create a **mobile application**. Be sure to apply all required styles (color, font, logo).

At the beginning of the session, be sure to run **WscRestApi/WscRestApiSelfHosting.exe**, which contains the REST API and will be available at **http://localhost:8999/** after starting. You must perform all communication of the mobile application with the database exclusively through that REST API. The available REST API methods and their parameters and responses are as follows:

* **POST** request to **http://localhost:8999/api/user/signin**
  + Validates the user's login information.
  + Request body example:

{ "Email": "bvulic@zahoo.com",

"Password": "password1" }

* + Response example for successful login (with ID we also get text Admin, Owner or Patient):

{ "UserId": 1,

"Role": "Patient" }

* + Response example for unsuccessful login:

{ "UserId": -1,

"Role": null }

* **POST** request to **http://localhost:8999/api/service/search**
  + Returns all services that contain the search term anywhere in their name.
  + Request body example:

{ "SearchTerm": "surger" }

* + Response example:

{ "AvailableServices":

[

{ "ServiceId": 1, "Name": "Abdominal surgery" },

{ "ServiceId": 10, "Name": "Neurosurgery" }

]

}

* **POST** request to **http://localhost:8999/api/appointment/free**
  + Returns all appointments in all clinics that offer the requested service.
  + Request body example:

{ "ServiceId": 1,

"DayFrom": "2023-06-10",

"DayTo": "2023-06-10" }

* + Response example:

{ "AvailableAppointments":

[

{ "ClinicId": "1", "From": "2023-06-10T09:00", "To": "2023-06-10T10:00" },

{ "ClinicId": "1", "From": "2023-06-10T10:00", "To": "2023-06-10T11:00" },

{ "ClinicId": "1", "From": "2023-06-10T11:00", "To": "2023-06-10T12:00" },

{ "ClinicId": "1", "From": "2023-06-10T12:00", "To": "2023-06-10T13:00" },

{ "ClinicId": "1", "From": "2023-06-10T13:00", "To": "2023-06-10T14:00" },

{ "ClinicId": "1", "From": "2023-06-10T14:00", "To": "2023-06-10T15:00" },

{ "ClinicId": "1", "From": "2023-06-10T15:00", "To": "2023-06-10T16:00" },

{ "ClinicId": "1", "From": "2023-06-10T16:00", "To": "2023-06-10T17:00" }

]

}

* **POST** request to **http://localhost:8999/api/appointment/register**
  + Registers the appointment.
  + Request body example:

{ "ClinicId": 1,

"UserId": 7,

"From": "2023-06-10 11:00",

"To": "2023-06-10 12:00",

"ServiceId": 1 }

* + Response is 200 OK
* **POST** request to **http://localhost:8999/api/user/appointments**
  + Returns a list of all the user's appointments.
  + Request body example:

{ "UserId": 7 }

* + Response example (status can be Created, Cancelled by user, Approved or Rejected):

{ "PatientsAppointments":

[

{ "AppointmentId": 9, "Clinic": "Venus", "From": "2023-06-21 14:00", "To": "2023-06-21 14:30", Status: "Approved" },

{ "AppointmentId": 10, "Clinic": "Arena", "From": "2023-06-21 08:00", "To": "2023-06-21 08:30", Status: "Approved" }

]

}

* **POST** request to **http://localhost:8999/api/appointment/unregister**
  + Unregisters the appointment.
  + Request body example:

{ "AppointmentId": 9 }

* + Response is 200 OK
* **POST** request to **http://localhost:8999/api/user/changepersonaldata**
  + Changes the name and last name of the user.
  + Request body example:

{ "UserId": 7,

"FirstName": "Dinko",

"LastName": "Hren" }

* + Response is 200 OK
* **POST** request to **http://localhost:8999/api/user/changepassword**
  + Changes the user's password.
  + Request body example:

{ "UserId": 7,

"Password": "This1IsStronger" }

* + Response is 200 OK

#### 3.1

Create a mobile application consisting of the following parts:

* Login form.
* Form for searching for services in clinics and registering an appointment.
* Form for viewing all appointments and canceling appointments.
* Form for changing personal data and password.

Navigation between forms should be done in accordance with good mobile application practices.

By starting the application, let the user immediately come to the login form. Allow the user to enter an e-mail and password and after a successful login:

* If the user is a patient, redirect him to the form for searching for services in clinics and registering an appointment described in 3.2.
* If he is a clinic owner or administrator, redirect him to a form that says "This application is for patients only, please use the desktop application."

In case of failed login, show him the appropriate error.

You can read examples of users and their passwords in the database.

#### 3.2

By coming to the form for searching for services in clinics and registering an appointment, allow the user to enter a term and show him all the services that contain the required term anywhere in their name.

Allow the user to choose one of the offered services and choose the start and end date when the examination suits him. By clicking on the button, show him all appointments in all clinics that offer the requested service in that date range.

Show the appointments that have passed in a color of your choice and show them disabled. Display appointments that have not passed in a different color and allow the user to register them by clicking the button and confirming "Are you sure".

#### 3.3

By coming to the form for viewing all appointments and canceling appointments, show the user a list of all his appointments. Enable the list to be sorted by appointment start date in ascending or descending order. With each appointment, show:

* Short name of the clinic
* Beginning and end of appointment

Color the appointments like this:

* If an appointment has been registered, but has neither been approved nor rejected, display it in yellow. Enable appointment cancellation by clicking on the button and confirming "Are you sure".
* If the appointment is canceled by the patient, display it in gray.
* If the appointment is approved by the clinic, display it in green.
* If the appointment is rejected by the clinic, display it in red.

#### 3.4

By coming to the form for changing personal data and password, allow the user two operations:

* Changing the name and last name.
* Changing the password, in a way that he has to enter the old password and then repeat the new password twice.