

VISOKA ŠKOLA STRUKOVNIH STUDIJA ZA INFORMACIONE TEHNOLOGIJE



ITS INFORMATION
TECHNOLOGY
SCHOOL

VISOKA ŠKOLA STRUKOVNIH STUDIJA ZA IT

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Projekat

Projektovanje i razvoj Java Web aplikacije za rezervaciju hotelskih soba

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1. VERBALNI MODEL

Korisnici aplikacije su klijenti, administratori i menadžeri hotela.

Klijentski deo aplikacije obezbeđuje klijentima mogućnost registracije, logovanja, menjanje svojih korisničkih podataka, brisanje svog naloga, pretraživanja hotela, pretraživanja hotelskih soba i rezervacije hotelskih soba u nekom od njih, kao i otkazivanje rezervacija. Pri svakoj rezervaciji klijenti dobijaju određeni broj poena koje kasnije mogu iskoristiti za nove rezervacije.

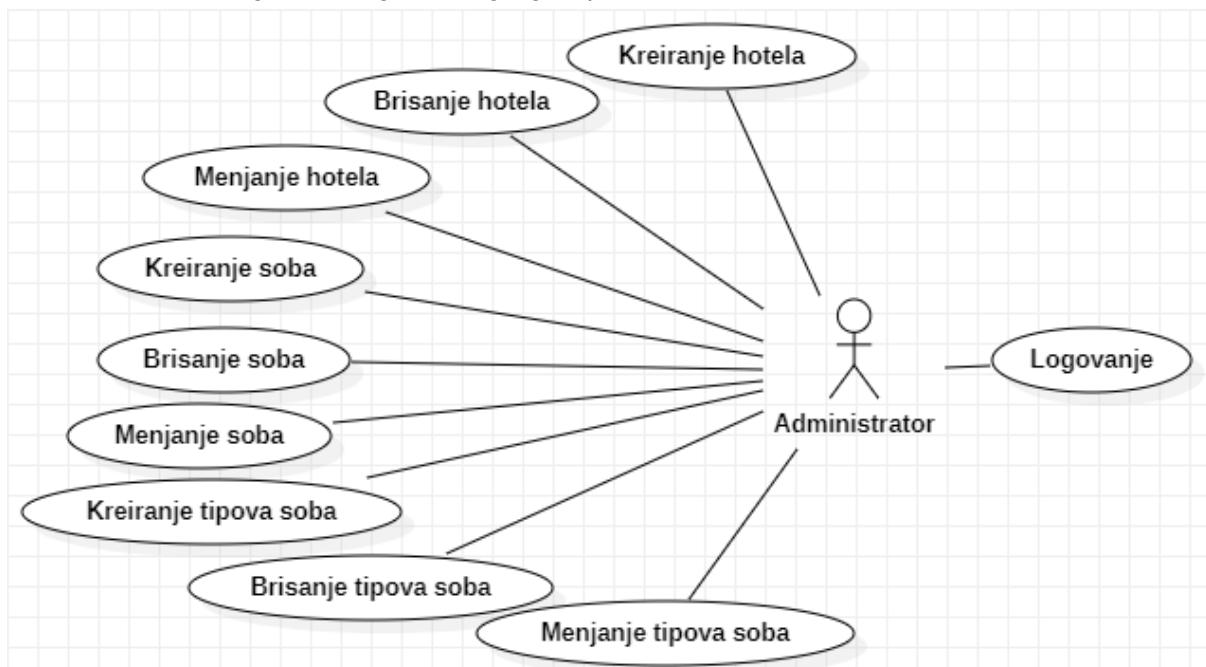
Administratori imaju mogućnost logovanja, kreiranja, izmene i brisanja hotela, hotelskih soba i tipova hotelskih soba.

Menadžeri hotela imaju slične mogućnosti, ali na nivou jednog hotela, tj. logovanje, izmenu hotela, kreiranje hotelskih soba, izmenu i brisanje hotelskih soba, kreiranje, izmenu i brisanje tipa hotelskih soba.

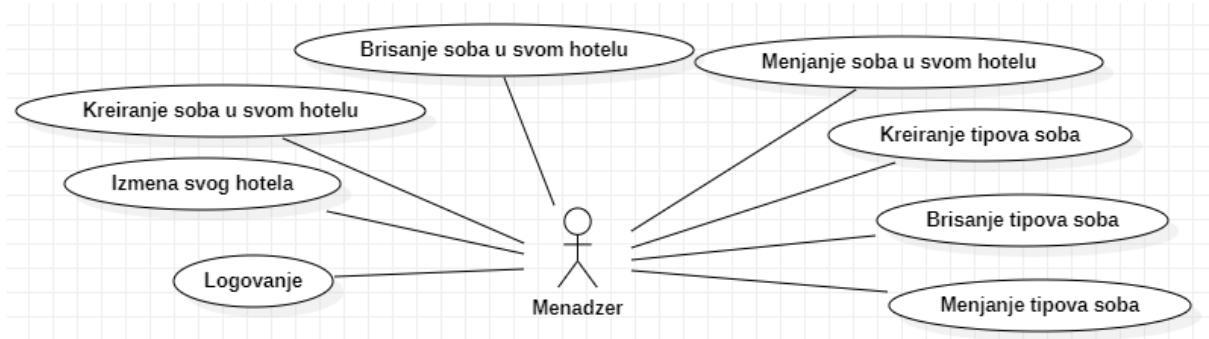
2. SLUČAJEVI KORIŠĆENJA

Na osnovu verbalnog modela uočeni su sledeći slučajevi korišćenja:

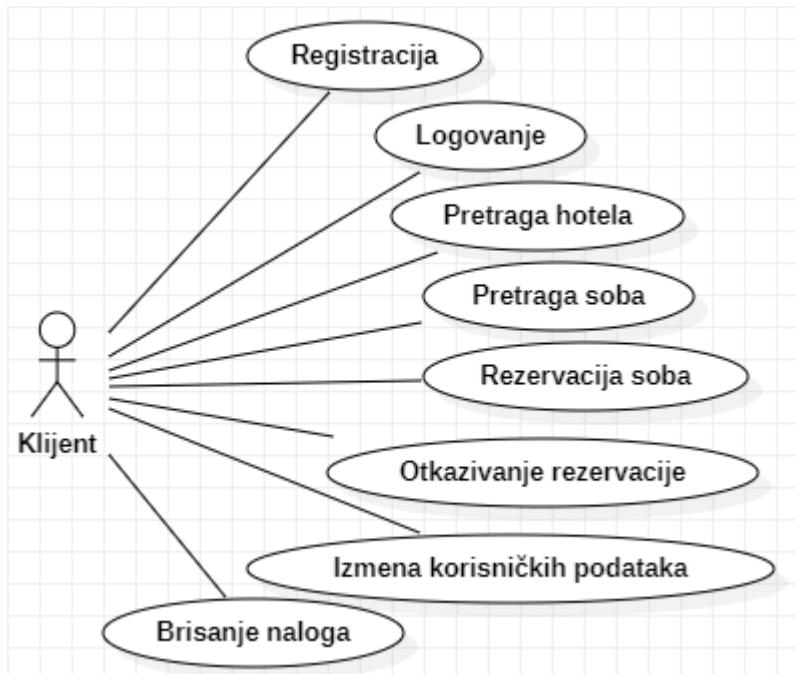
- Administrator:
 1. Logovanje
 2. Kreiranje, brisanje i menjanje hotela
 3. Kreiranje, brisanje i menjanje soba
 4. Kreiranje, brisanje i menjanje tipova soba



- Menadžer:
 1. Logovanje
 2. Izmena svog hotela
 3. Kreiranje, brisanje i menjanje soba u svom hotelu
 4. Kreiranje, brisanje i menjanje tipova soba



- Klijent:
 1. Registracija
 2. Logovanje
 3. Menjanje detalja svog profila
 4. Pretraga hotela i soba
 5. Pravljenje rezervacije
 6. Otkazivanje rezervacije
 7. Brisanje profila



3. OPIS SLUČAJEVA KORIŠĆENJA, SISTEMSKI DIJAGRAMI SEKVENCI ZA SK I PROJEKTOVANJE KORISNIČKOG INTERFEJSA

3.1. SVI KORISNICI

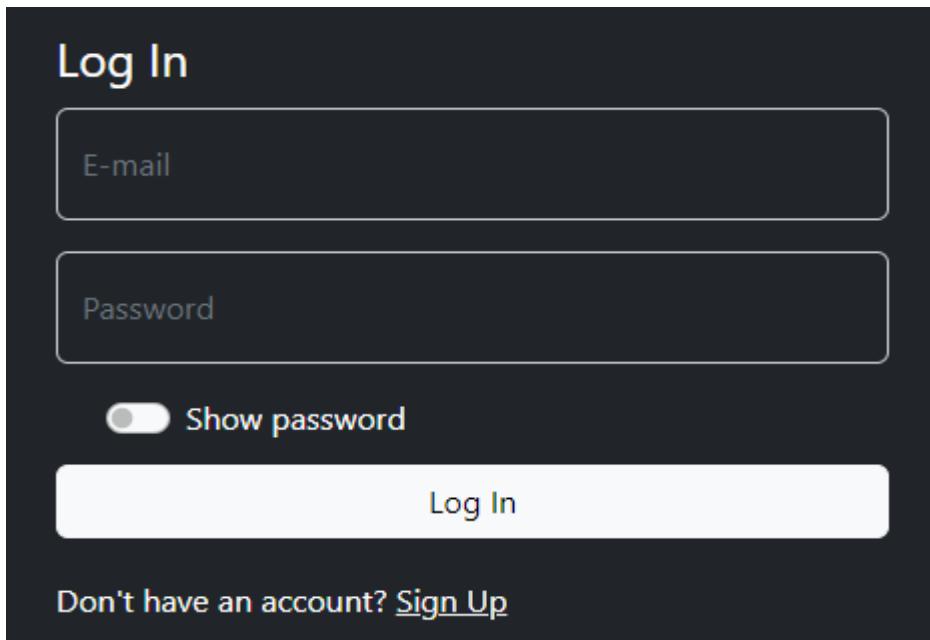
SK1: ULOGOVANJE U APLIKACIJU

Naziv: Ulogovanje u aplikaciju

Aktori: Klijent, Menadžer, Administrator

Učesnici: Klijent, Menadžer, Administrator, Sistem

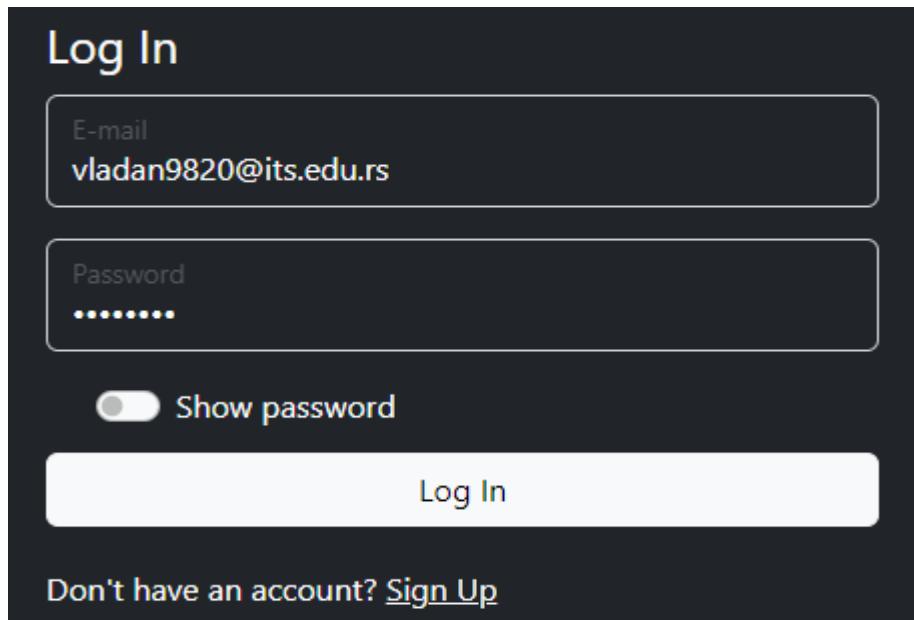
Preduslov: Otvorena je forma za ulogovanje



The image shows a dark-themed login form titled "Log In". It features two input fields: "E-mail" and "Password", both with rounded corners. Below the password field is a toggle switch labeled "Show password". At the bottom is a large, light-colored "Log In" button with blue text. At the very bottom of the form, there is a link "Don't have an account? [Sign Up](#)".

Osnovni scenario:

1. Korisnik unosi email i šifru i klikće na dugme "Log In" (APUSO)



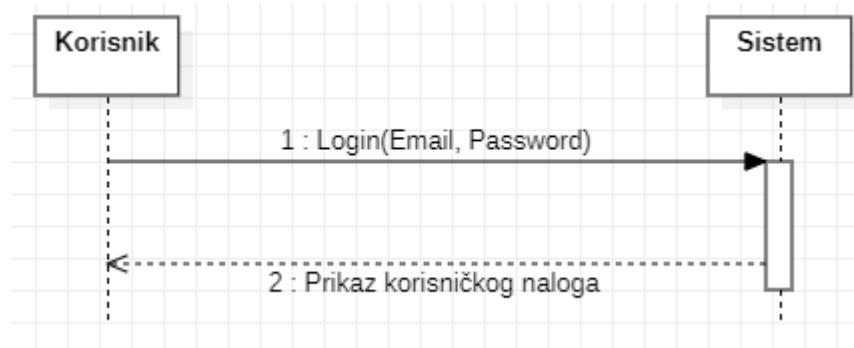
The image shows the same login form as above, but with the "E-mail" field populated with "vladan9820@its.edu.rs". The "Password" field contains several dots, indicating a masked password. All other elements (button, link) remain the same.

2. Sistem validira unete podatke (SO)
3. Sistem prikazuje nalog korisnika koji se ulogovao (IA)

The screenshot shows a user profile page for 'Vladan Tešić'. The profile details are as follows:

- Full Name: Vladan Tešić
- E-mail: vladan9820@its.edu.rs
- Phone number: 0694202344
- Hired: Friday 15. April, 2016
- Country: Serbia
- City: Belgrade
- Address: Španskih boraca 34
- Birthday: Sunday 2. September, 2001

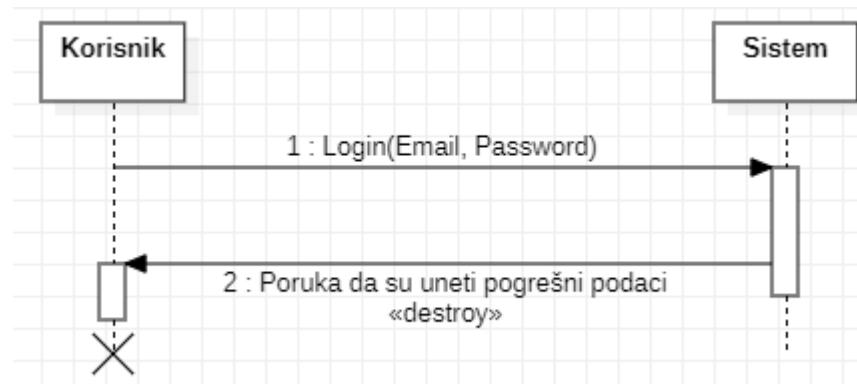
Buttons at the top right include 'Log Out' and links to 'Show All Hotels', 'Show All Rooms', and 'Show All Room Types'.



Alternativni scenario:

2.1. Korisnik je uneo pogrešne podatke i sistem ga obaveštava o tome

The screenshot shows a 'Log In' page with a dark background. There are two input fields: 'E-mail' containing 'vladan9820@its.edu.rs' with an exclamation mark icon, and 'Password' containing '....' with an exclamation mark icon. Both fields have the error message 'Email or password are incorrect!' below them. A 'Show password' toggle switch is present. A large 'Log In' button is at the bottom. Below it, a link says 'Don't have an account? [Sign Up](#)'.

**Uvedene su sistemske operacije:**

1. Login>Email, Password)

3.2. KLIJENT

SK2: REGISTRACIJA KLIJENTA

Naziv: Registracija Klijenta

Aktori: Klijent

Učesnici: Klijent, Sistem

Preduslovi: Otvorena je forma za registraciju

Create an Account

First Name	Last Name
Country: Please Select One	City
Address	Phone Number
E-mail	Password

Date of Birth:

Show password

Already have an account? [Log In](#)

Osnovni scenario:

1. Klijent popunjava formu za registraciju i klikće dugme "Sign Up" (APUSO)

Create an Account

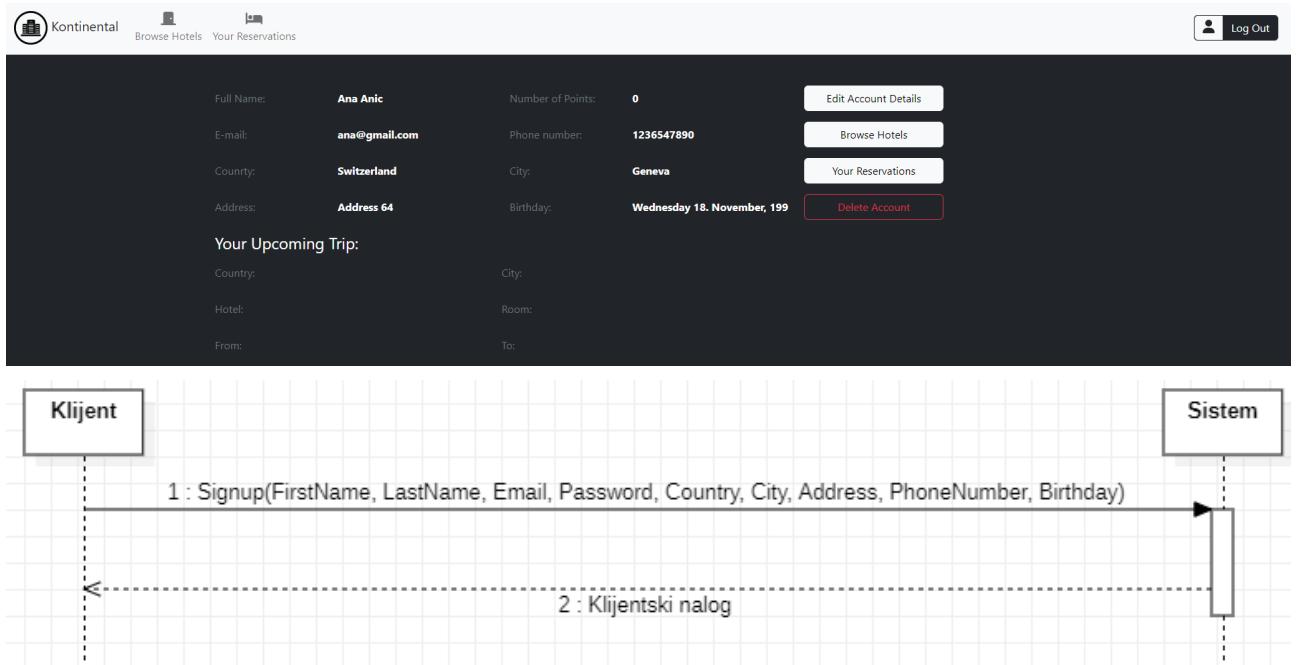
First Name Ana	Last Name Anic
Country: Switzerland	City Geneva
Address Address 64	Phone Number 1236547890
E-mail ana@gmail.com	Password

Date of Birth:

Show password

Already have an account? [Log In](#)

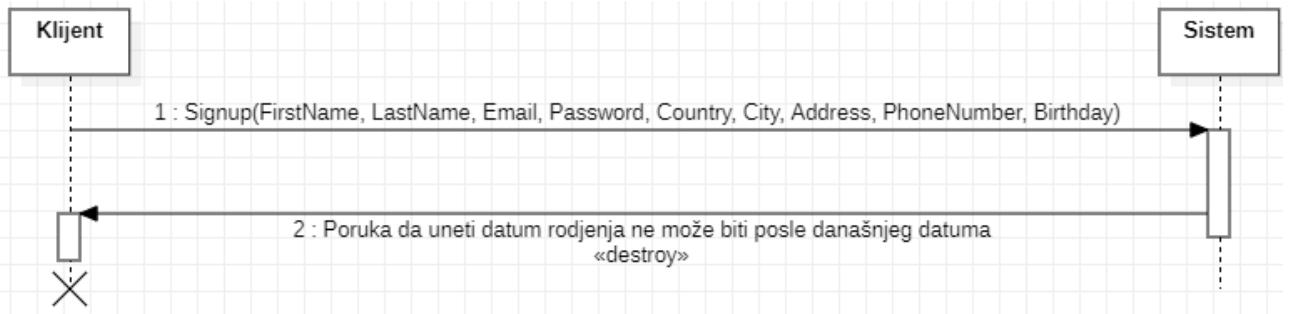
2. Sistem obradjuje unete podatke (SO)
3. Sistem klijentu prikazuje stranicu njegovog profila (IA)



Alternativni scenario:

- 2.1. Klijent je za svoj datum rodjenja uneo datum koji je posle današnjeg dana i sistem ga obaveštava o tome (IA)

The screenshot shows the 'Create an Account' form. The user has entered their first name, last name, country, city, address, phone number, email, and password. The date of birth is set to '23-Jun-2023'. A validation error message 'Birthday can't be after the current date!' is displayed below the date input field. To the right, there is a 'Show password' toggle switch.



2.2. Klijent je uneo email koji je već registrovan u sistemu i dobija poruku o tome (IA)

Create an Account

First Name
Ana

Last Name
Anic

Country:
Switzerland

City
Geneva

Address
Address 64

Phone Number
1236547890

E-mail
marko@gmail.com !

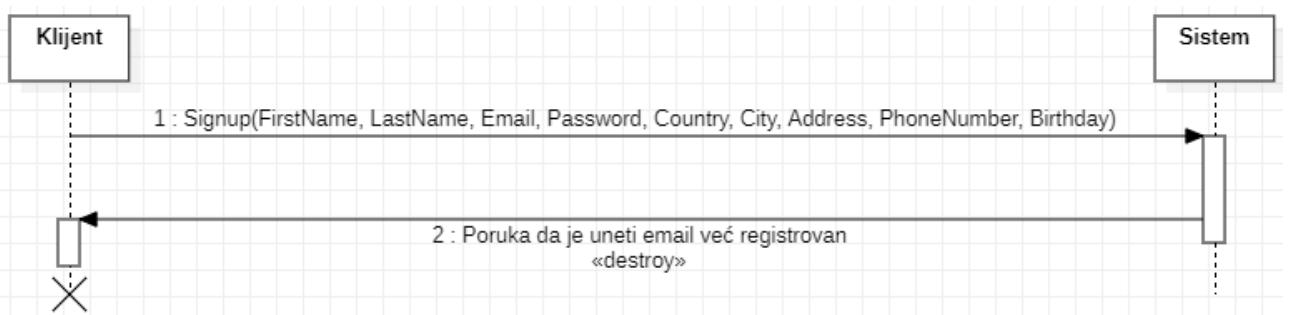
Password
.....

Email has already been registered !

Date of Birth:
18-Nov-1992

Show password

Sign Up Already have an account? [Log In](#)



Uvedene su sistemske operacije:

1. Signup(FirstName, LastName, Email, Password, Country, City, Address, PhoneNumber, Birthday)

SK3: IZMENA DETALJA KLIJENTSKOG NALOGA

Naziv: Izmena detalja klijentskog naloga

Aktori: Klijent

Učesnici: Klijent, Sistem

Preduslovi: Klijent je ulogovan, pokrenuta je forma za izmenu detalja profila

Edit Account Details

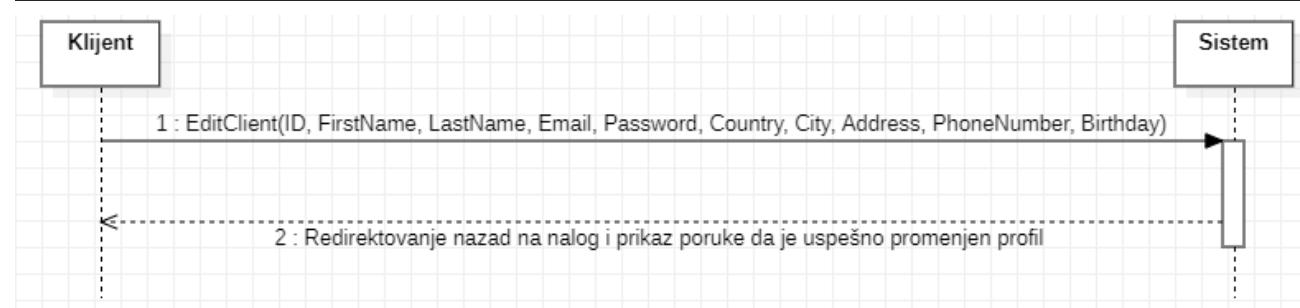
First Name:	Last Name:
Ana	Anić
Country:	City:
Please Select One	Geneva
Address:	Phone Number:
Address 64	1236547890
Email:	Password:
ana@gmail.com	<input type="password"/>
Date of Birth:	Show password
18-Nov-1992	<input checked="" type="checkbox"/>
<input type="button" value="Edit Account"/>	

Osnovni scenario:

1. Forma je već popunjena sa detaljima koje je klijent uneo pri registraciji, polja "Country" i "Password" ako se ostave prazna znači da se neće menjati. Ostala polja klijent popunjava kako poželi i klikće dugme "Edit Account" (APUSO)
2. Sistem obradjuje unete podatke (SO)
3. Sistem vraća klijenta na njegov nalog i prikazuje mu poruku da je izmena profila uspešno odradjena (IA)

Your account details have been updated!

Full Name:	Ana Anić	Number of Points:	0	<input type="button" value="Edit Account Details"/>
E-mail:	ana@gmail.com	Phone number:	1236547890	<input type="button" value="Browse Hotels"/>
Country:	Switzerland	City:	Geneva	<input type="button" value="Your Reservations"/>
Address:	Address 64	Birthday:	Wednesday 18. November, 199	<input type="button" value="Delete Account"/>

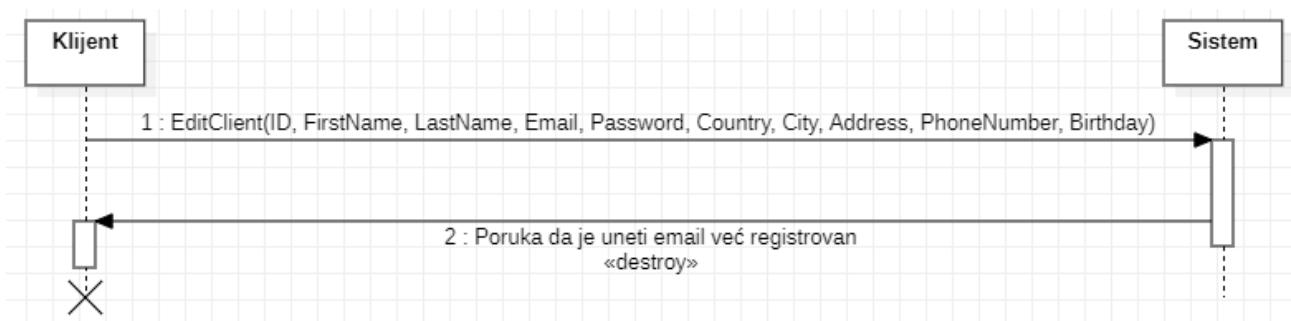


Alternativni scenario:

2.1. Klijent je uneo email nekog drugog korisnika i obavešten je o tome (IA)

Edit Account Details

First Name:	Last Name:
Ana	Anic
Country:	City:
Please Select One	Geneva
Address:	Phone Number:
Address 64	1236547890
Email:	Password:
marko@gmail.com	<input type="password"/>
Email you put in has already been registered!	
Date of Birth:	<input checked="" type="checkbox"/> Show password
18-Nov-1992	<input type="button" value=""/>
<input type="button" value="Edit Account"/>	

**Uvedene su sistemske operacije:**

1. EditClient(ID, FirstName, LastName, Email, Password, Country, City, Address, PhoneNumber, Birthday)

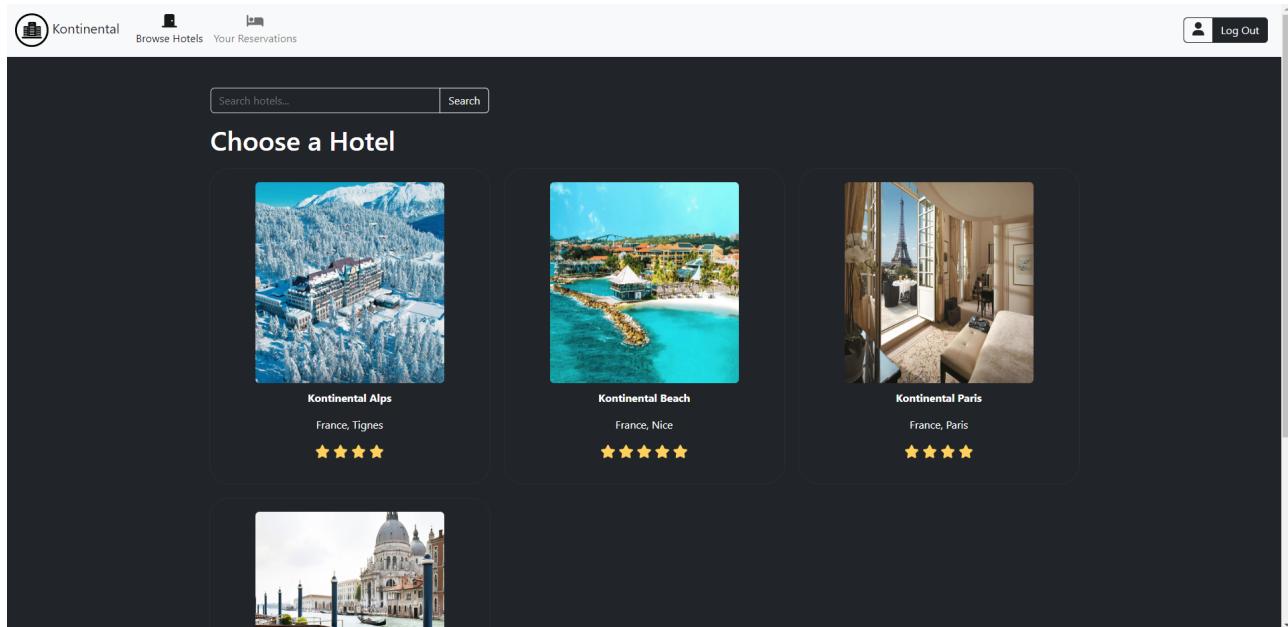
SK4: PRETRAGA HOTELA

Naziv: Pretraga hotela pri rezervaciji sobe

Aktori: Klijent

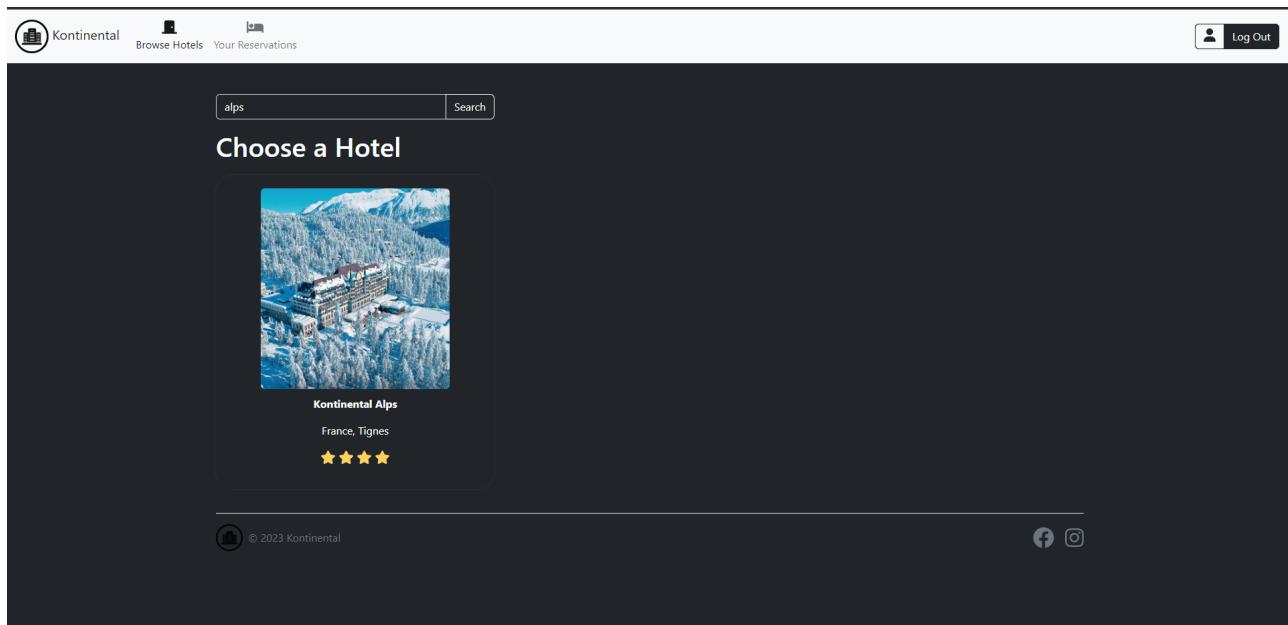
Učesnici: Klijent, Sistem

Preduslovi: Klijent je ulogovan, prešao je na stranicu za pretragu hotela



Osnovni scenario:

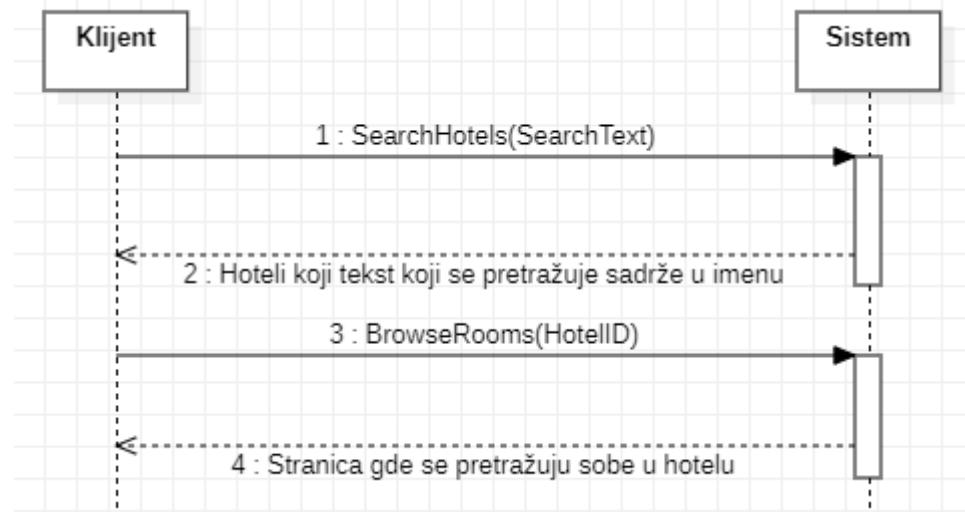
1. Pri pokretanju stranice svi hoteli su već izlistani, za dalju pretragu klijent može da napiše nešto u polju za pretragu i da klikne na "Search" (APUSO)
2. Sistem obraduje uneti tekst (SO)
3. Sistem prikazuje hotele koji u svom nazivu sadrže tekst koji se pretraživao (IA)



4. Klijent klikće na hotel u kom želi da rezerviše sobu (APSO)

5. Sistem prebacuje korisnika na stranicu gde bira sobu u izabranom hotelu (IA)

The screenshot shows a dark-themed web page for 'Kontinental'. At the top, there's a navigation bar with the 'Kontinental' logo, 'Browse Hotels', 'Your Reservations', and a 'Log Out' button. Below the navigation, there are input fields for 'Reserve From:' and 'Reserve Until:', each with a date picker icon. A 'Show Available Rooms' button is located below these fields. At the bottom of the page, there's a copyright notice '© 2023 Kontinental' and social media links for Facebook and Instagram.



Uvedene su sistemske operacije:

1. `SearchHotels(SearchText)`
2. `BrowseRooms(HotelID)`

SK5: PRETRAGA SOBA

Naziv: Pretraga soba u hotelu pri rezervaciji

Aktori: Klijent

Učesnici: Klijent, Sistem

Preduslovi: Klijent je ulogovan, prešao je na stranicu za pretragu hotela i izabrao je hotel u kom želi da rezerviše sobu

The screenshot shows the top navigation bar with the Kontinental logo, 'Browse Hotels', 'Your Reservations', and a 'Log Out' button. Below the navigation is a search form with 'Reserve From:' and 'Reserve Until:' date fields set to 'dd--yyyy'. A 'Show Available Rooms' button is centered below the dates. At the bottom of the page are social media links for Facebook and Instagram, and a copyright notice: '© 2023 Kontinental'.

Osnovni scenario:

1. Klijent bira datume kada želi da mu soba bude rezervisana i klikće na "Show Available Rooms" (APUSO)

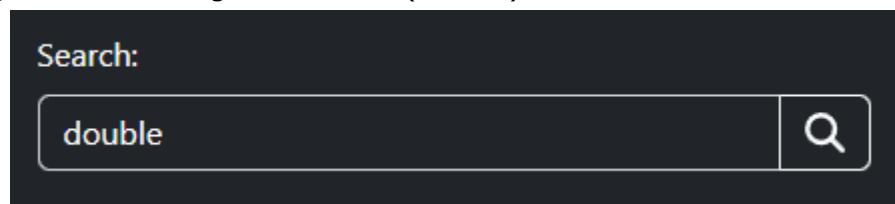
This screenshot shows the search results for available rooms. It displays two date inputs: 'Reserve From: 26-Jun-2023' and 'Reserve Until: 02-Jul-2023'. Below these is a large 'Show Available Rooms' button.

2. Sistem obradjuje datume (SO)
3. Sistem prikazuje klijentu sobe koje su dostupne izmedju izabranih datuma (IA)

This screenshot shows the search results with various filters applied. On the left, there are three sections: 'Bed type' (radio buttons for Single, Double, Single + Double, Queen, King), 'Number of Beds' (radio buttons for 1, 2, 3, 4), and 'Kitchen' (radio button for None). To the right, the results are displayed in a grid of boxes, each showing room details and price per night:

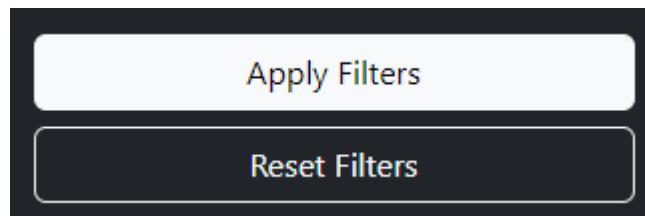
Room Type	Description	Price per Night
1x Single Bed No Kitchen Shower	1x Single Bed No Kitchen Shower	€80.00
1x Double Bed Semi-furnished Kitchen Bath	1x Double Bed Semi-furnished Kitchen Bath	€90.00
2x Single Beds Fully-furnished Kitchen Shower	2x Single Beds Fully-furnished Kitchen Shower	€100.00
1x Single/Double Combo Semi-furnished Kitchen Shower	1x Single/Double Combo Semi-furnished Kitchen Shower	€110.00
2x Double Beds Fully-furnished Kitchen Bath	2x Double Beds Fully-furnished Kitchen Bath	€120.00
1x Queen Size Bed Fully-furnished Kitchen Bath	1x Queen Size Bed Fully-furnished Kitchen Bath	€140.00
1x King Size Bed Fully-furnished Kitchen Bath	1x King Size Bed Fully-furnished Kitchen Bath	€160.00
2x King Size Beds Fully-furnished Kitchen Bath	2x King Size Beds Fully-furnished Kitchen Bath	€300.00

4. Klijent ima opciju da pretražuje sobe po nazivu, i u tom slučaju popunjava polje za pretragu i klikće na dugme "Search" (APUSO)



5. Sistem obradjuje uneti tekst (SO)
6. Sistem prikazuje klijentu sve sobe koje u svom nazivu sadrže uneti tekst (IA)

7. Klijent takođe ima opciju pretrage preko filtera. Klijent bira koje god želi od ponudjenih filtera i klikće na "Apply Filters" dugme (APUSO)



Filters:

Bed type

- Single
 - Double
 - Single + Double
 - Queen
 - King
-

Number of Beds

- 1
 - 2
 - 3
 - 4
-

Kitchen

- None
 - Semi-furnished
 - Fully-furnished
-

Bathroom

- Shower
- Bath

8. Sistem obradjuje izabrane filtere (SO)
9. Sistem prikazuje klijentu sve sobe koje ispunjavaju filtere koje je izabrao (IA)

The screenshot shows a hotel booking interface. At the top, there are buttons for 'Kontinental', 'Browse Hotels', and 'Your Reservations'. On the right, there's a 'Log Out' button. Below the header, there are date selection fields ('Reserve From: 26-Jun-2023' and 'Reserve Until: 02-Jul-2023'), a search bar ('Search rooms...'), and a 'Show Available Rooms' button. A large section titled 'Filters:' contains several dropdown menus:

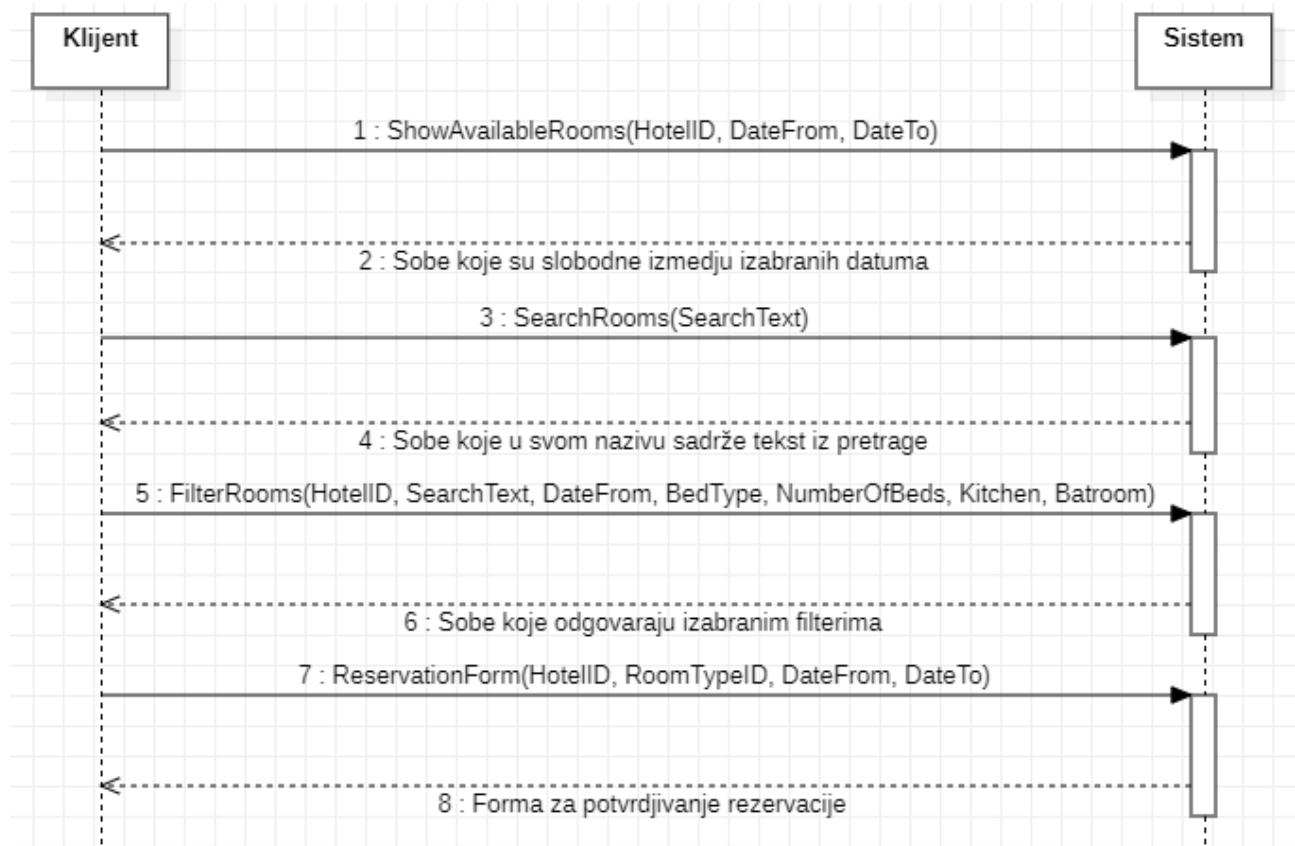
- Bed type:** Options include Single, Double, Single + Double, Queen, and King. 'Single' is selected.
- Number of Beds:** Options include 1, 2, 3, and 4. '1' is selected.
- Kitchen:** Options include None and Kitchen. 'None' is selected.

 To the right of these filters, a summary box displays: '2x Single Beds | Fully-furnished Kitchen | Shower' and 'Price per Night: €100.00'.

10. Nakon što je našao sobu koju želi da rezerviše klijent klikće na nju (APSO)
11. Sistem obradjuje podatke (SO)
12. Sistem prikazuje formu gde klijent može da završi svoju rezervaciju (IA)

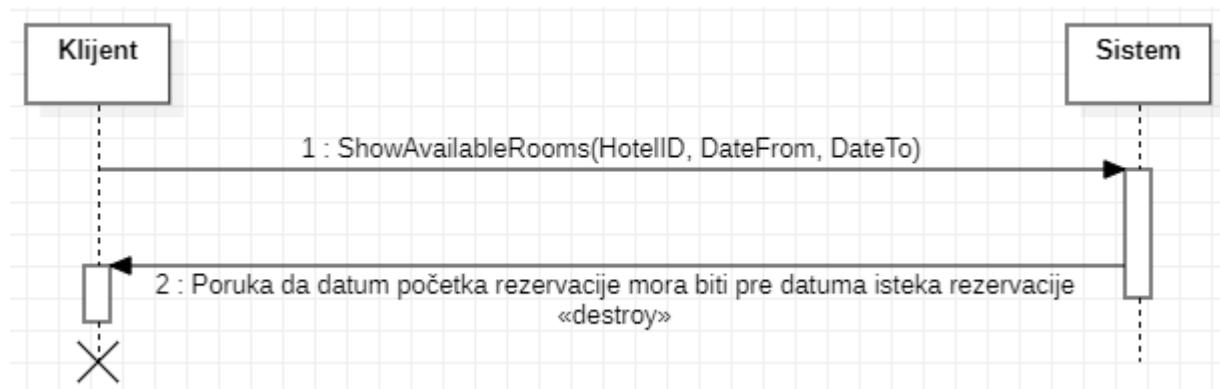
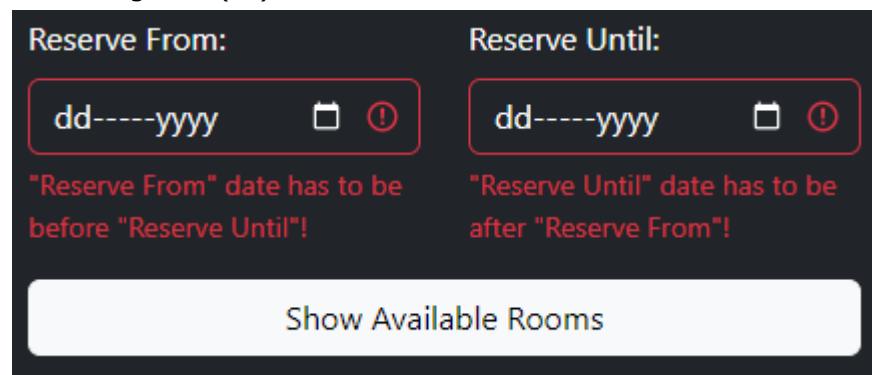
The screenshot shows a 'Finalize Reservation' form with the following fields:

- First Name:** Two separate fields for 'First Name' (containing 'Ana' and 'Anic' respectively).
- E-mail:** Field containing 'ana@gmail.com'.
- Phone Number:** Field containing '1236547890'.
- Reserve From:** Field containing '26-Jun-2023'.
- Reserve Until:** Field containing '02-Jul-2023'.
- Total Price:** Field containing '600.00'.
- Use your points? You have:** A toggle switch set to '0'.
- Reserve:** A large blue 'Reserve' button at the bottom.



Alternativni Scenario:

- 2.1. Klijent je uneo datum početka rezervacije da bude posle kraja rezervacije i sistem ga obaveštava o grešci (IA)

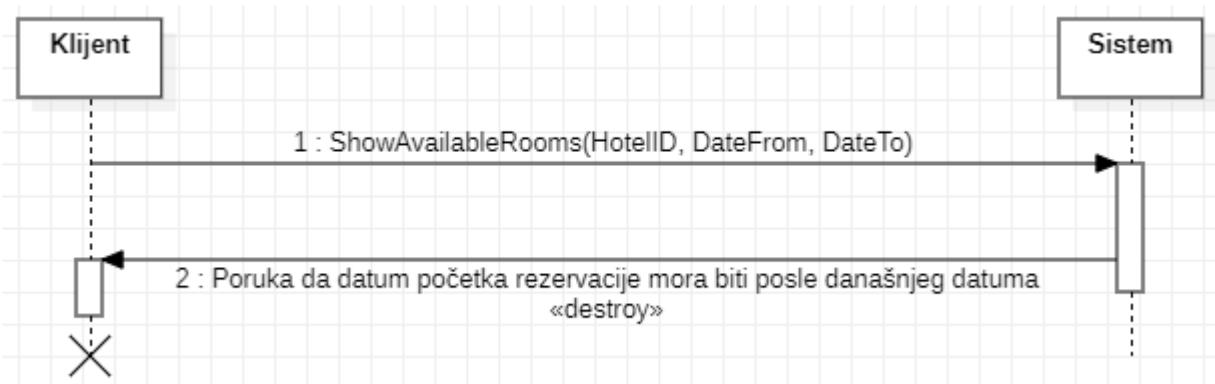


2.2. Klijent je uneo datum početka rezervacije da je pre današnjeg datuma i sistem ga obaveštava o tome (IA)

Reserve From: dd-----yyyy Reserve Until: dd-----yyyy

"Reserve From" date can't be before the current date!

Show Available Rooms



Uvedene su sistemske operacije:

1. ShowAvailableRooms(HotelID, DateFrom, DateTo)
2. SearchRooms(SearchText)
3. FilterRooms(HotelID, SearchText, DateFrom, BedType, NumberOfBeds, Kitchen, Bathroom)
4. ReservationForm(HotelID, RoomTypeID, DateFrom, DateTo)

SK6: REZERVACIJA SOBE

Naziv: Rezervacija izabrane sobe

Aktori: Klijent

Učesnici: Klijent, Sistem

Preduslovi: Klijent je ulogovan i izabrao je sobu koju želi da rezerviše

Finalize Reservation

First Name Ana	First Name Anic
E-mail ana@gmail.com	Phone Number 1236547890
Reserve From: 26-Jun-2023	Reserve Until: 02-Jul-2023
Total Price: 600.00	Use your points? You have: 0

Reserve

Osnovni scenario:

1. Forma kada se prikaže već je popunjena sa klijentskim podacima, datumom rezervacije i cenom rezervacije koja se automatski izračunala. Klijent ima opciju da iskoristi svoje poene, ako ih ima, čekiranjem da želi da ih iskoristi, broj poena je jednak procentu za koliko se smanjuje cena rezervacije. Klijent klikće na dugme "Reserve" (APSO)
2. Sistem procesuje rezervaciju. Ako je klijent izabrao da iskoristi svoje poene oni mu se oduzimaju i cena se smanjuje za određenu količinu. U suprotnom ako ih nije iskoristio dobija 2 dodatna poena. (SO)

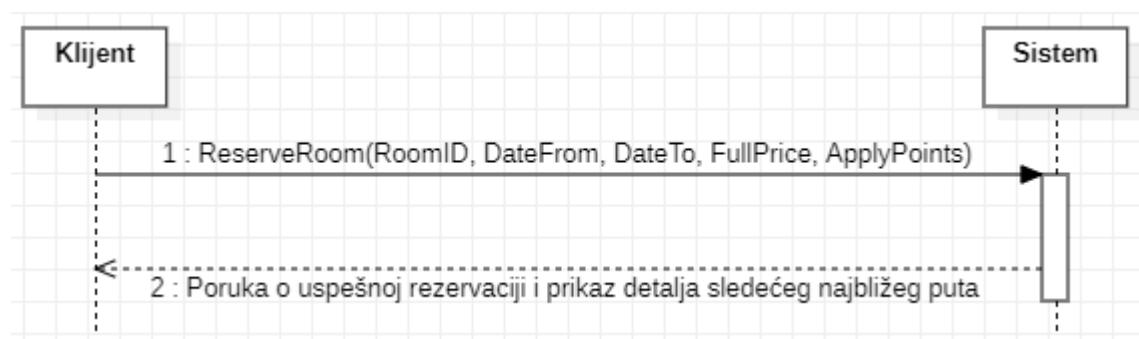
3. Sistem prebacuje klijenta nazad na njegov nalog, ispisuje mu poruku da je rezervacija uspešno zapisana i prikazuje mu detalje njegovog sledećeg najbližeg putovanja (IA)

✓ Your reservation has been completed, you can view the details in "Your Reservations" tab!

Full Name:	Ana Anic	Number of Points:	2	Edit Account Details
E-mail:	ana@gmail.com	Phone number:	1236547890	Browse Hotels
Country:	Switzerland	City:	Geneva	Your Reservations
Address:	Address 64	Birthday:	Wednesday 18. November, 199	Delete Account

Your Upcoming Trip:

Country:	France	City:	Tignes
Hotel:	Kontinental Alps	Room:	201
From:	Monday 26. June, 2023	To:	Sunday 2. July, 2023



Uvedene su sistemske operacije:

1. ReserveRoom(RoomID, DateFrom, DateTo, FullPrice, ApplyPoints)

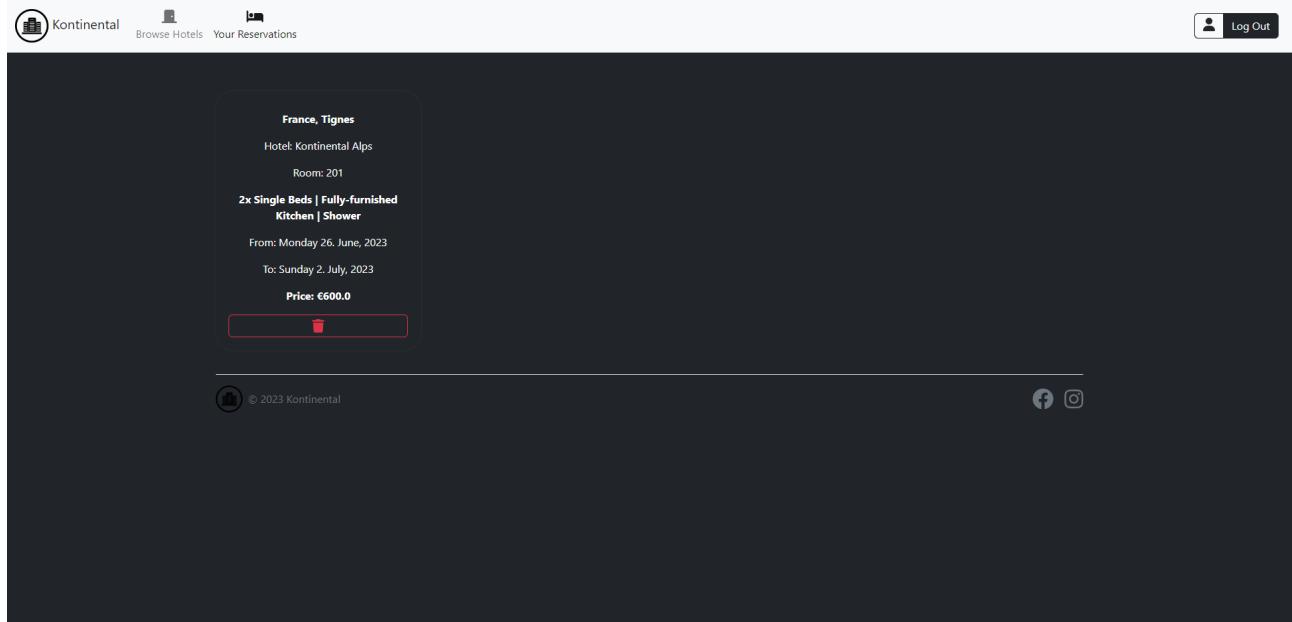
SK7: OTKAZIVANJE REZERVACIJE

Naziv: Otkazivanje rezervacije

Aktori: Klijent

Učesnici: Klijent, Sistem

Preduslovi: Klijent je ulogovan i otišao je na stranicu gde mu se prikazuju sve njegove rezervacije



Osnovni scenario:

1. Klijent bira rezervaciju koju želi da obriše i klikće dugme na dnu rezervacije (APSO)
2. Sistem briše rezervaciju (SO)
3. Sistem klijentu izbacuje poruku da je rezervacija uspešno obrisana (IA)

Your reservation has been successfully deleted!



Uvedene su sistemske operacije:

1. DeleteReservation(ReservationID)

SK8: BRISANJE NALOGA

Naziv: Brisanje klijentskog naloga

Aktori: Klijent

Učesnici: Klijent, Sistem

Preduslovi: Klijent je ulogovan i nalazi se na stranici njegovog naloga

Full Name:	Ana Anic	Number of Points:	2	Edit Account Details
E-mail:	ana@gmail.com	Phone number:	1236547890	Browse Hotels
Country:	Switzerland	City:	Geneva	Your Reservations
Address:	Address 64	Birthday:	Wednesday 18. November, 199	Delete Account

Osnovni scenario:

1. Klijent klikće na dugme "Delete Account" (APSO)
2. Sistem briše klijentski nalog (SO)
3. Klijent je preusmeren na stranicu za registraciju i prikazana mu je poruka o uspešnom brisanju naloga (IA)

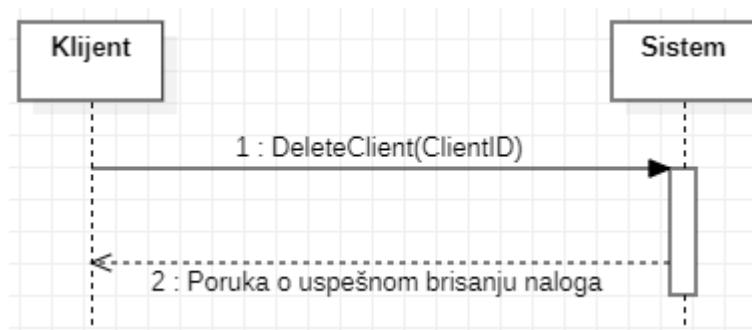
Your account has been deleted!

Create an Account

First Name	Last Name
Country: Please Select One	City
Address	Phone Number
E-mail	Password

Date of Birth: Show password

[Sign Up](#) [Already have an account? Log In](#)



Uvedene su sistemske operacije:

2. DeleteClient(ClientID)

3.3. ADMINISTRATOR I MENADŽER

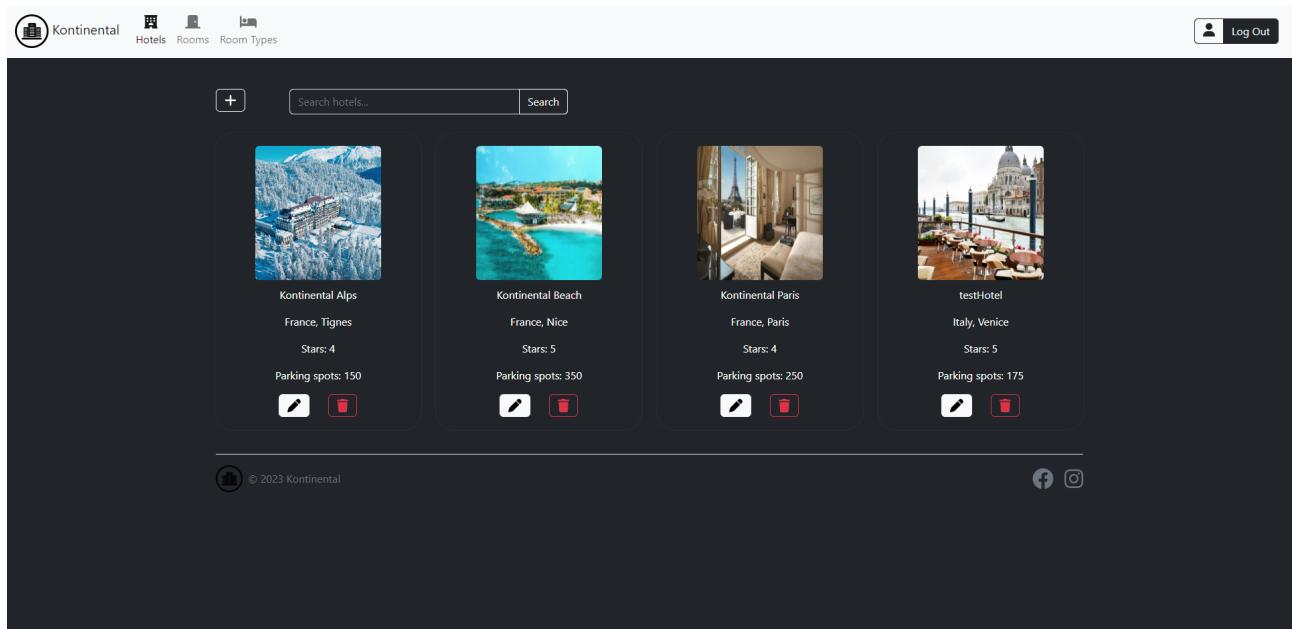
SK9: IZMENA HOTELA

Naziv: Izmena hotela

Aktori: Menadžer, Administrator

Učesnici: Menadžer, Administrator, Sistem

Preudslovi: Menadžer ili Administrator su ulogovani. Menadžer je upadio formu za izmenu svog hotela. Administrator je prešao na stranicu za prikaz svih hotela.



Osnovni scenario:

- Administrator bira hotel koji želi da izmeni i klikće na dugme za izmenu detalja hotela (APSO)
- Sistem generiše formu za izmenu hotela (SO)
- Sistem prikazuje popunjenu formu sa detaljima hotela. Jedina razlika izmedju forme za menadžera i administratora je ta da administrator dodatno može da menja zaduženog menadžera za hotel. (IA)

Edit Hotel

Hotel Manager:

M1001 - Marko Markovic

Hotel Name
Kontinental Alps

Country:
France

City
Tignes

Number of stars
4

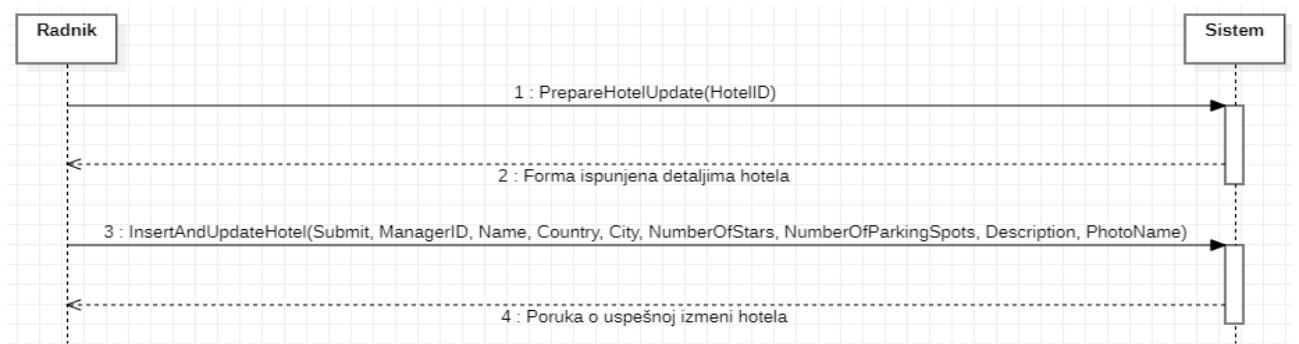
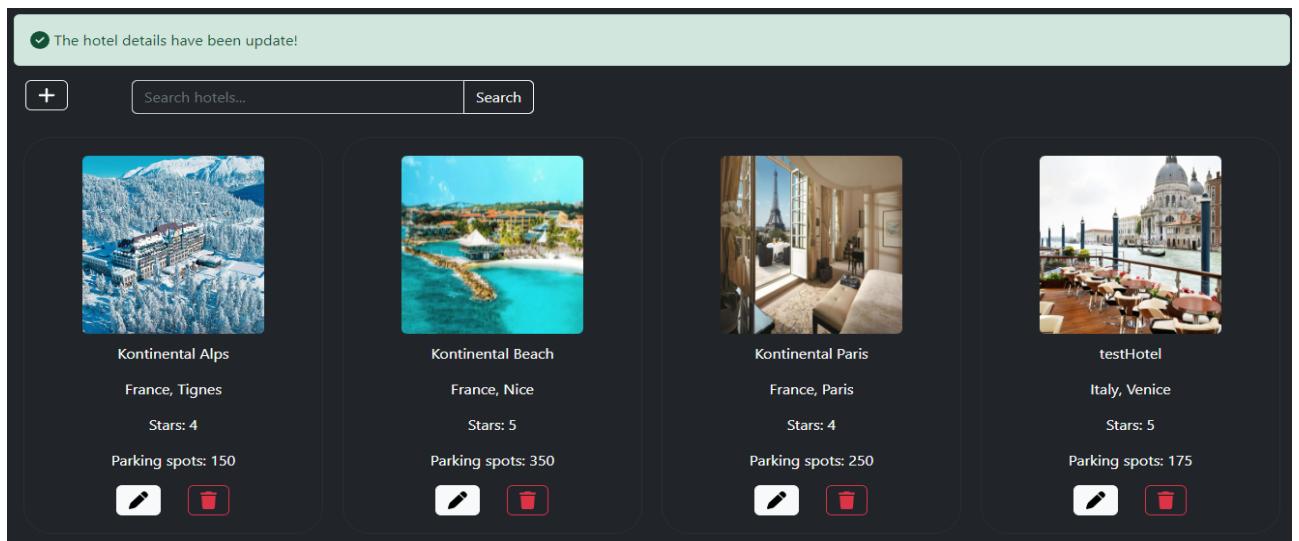
Parking spots
150

Hotel Picture
hotelAlps.webp

Hotel Description
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Curabitur porta lorem eu tempor commodo. Nunc gravida rutrum urna, vel cursus nunc ultricies ut. Ut vehicula id nibh et tincidunt. Nunc ac commodo nunc. Aenean ultrices ex sed ante vehicula, consequat molestie arcu vestibulum.

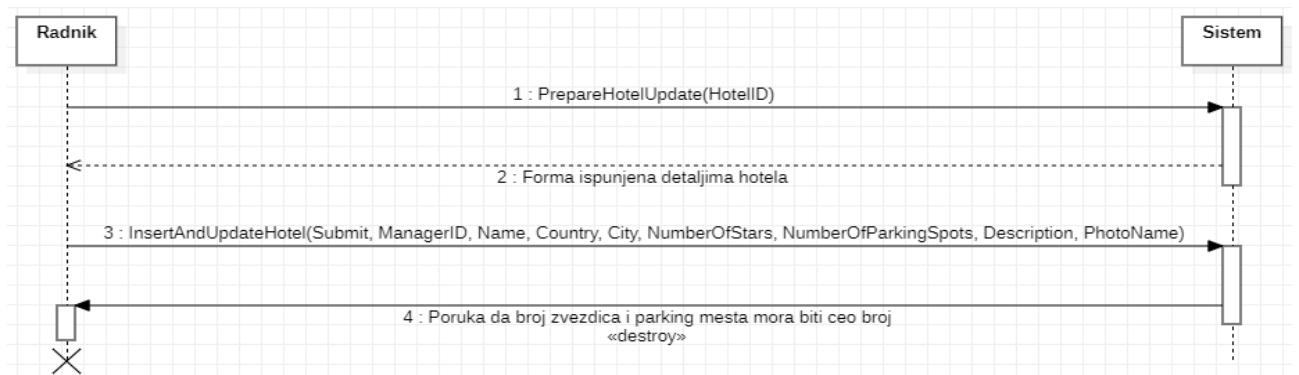
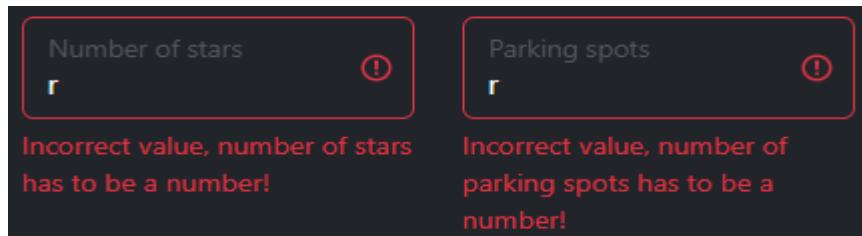
Edit Hotel

4. Nakon što je radnik izmenio u formi šta želi da promeni klikće na dugme "Edit Hotel" (APUSO)
5. Sistem obradjuje podatke (SO)
6. Sistem ispisuje poruku da je uspešno izmenjen hotel (IA)



Alternativni scenario:

5.1. Radnik za broj zvezdica ili broj parking mesta nije uneo ceo broj i obavešten je o tome (IA)



Uvedene su sistemske operacije:

1. PrepareHotelUpdate(HotelID)
2. InsertAndUpdateHotel(Submit, ManagerID, Name, Country, City, NumberOfStars, NumberOfParkingSpots, Description, PhotoName)

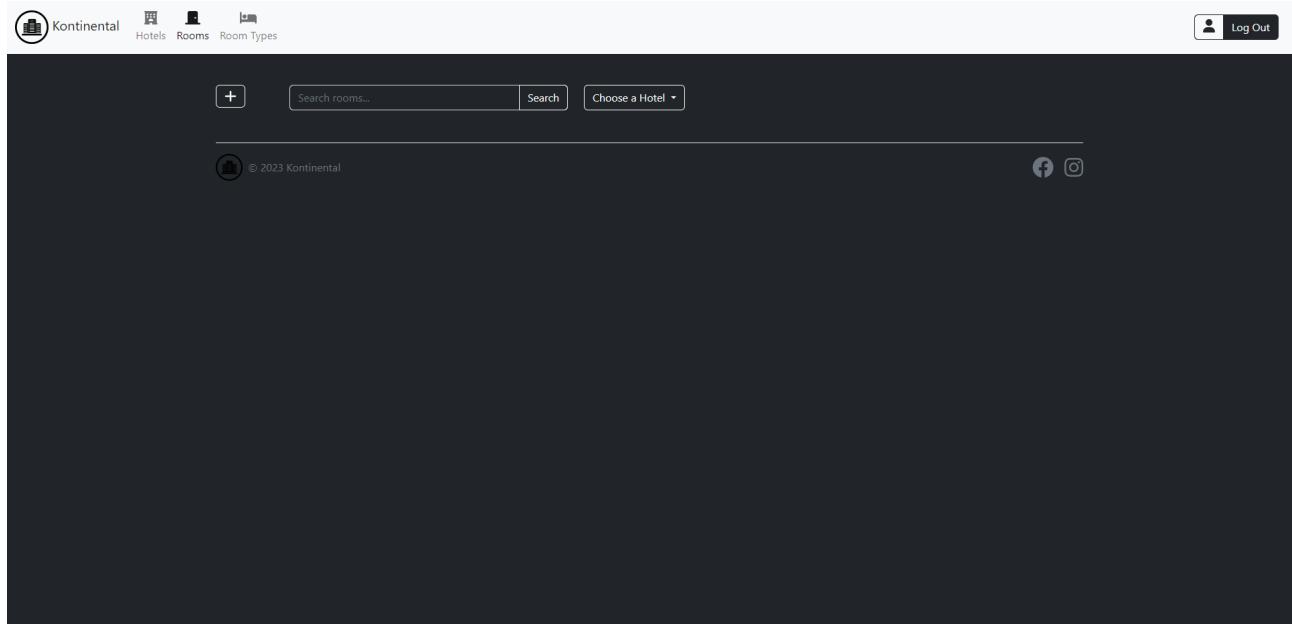
SK10: DODAVNJE SOBE

Naziv: Dodavanje nove sobe u hotel

Aktori: Menadžer, Administrator

Učesnici: Menadžer, Administrator, Sistem

Preduslovi: Radnik je ulogovan i prešao na stranicu za prikaz svih soba.



Osnovni scenario:

1. Radnik klikće na dugme sa plusom da bi napravio novu formu (APSO)
2. Sistem obradjuje podatke (SO)
3. Sistem prikazuje formu za unos nove sobe. Menadžeru je već unapred izabran njegov hotel i ne može da ga promeni (IA)

Add New Room

Hotel

Select One

Room Type

Select One

Room Number

Price per Night

Add Room to Hotel

4. Radnik popunjava formu i klikće na dugme "Add Room to Hotel" (APUSO)

Add New Room

Hotel

testHotel

Room Type

2x King Size Beds | Fully-furnished Kitchen | Bath

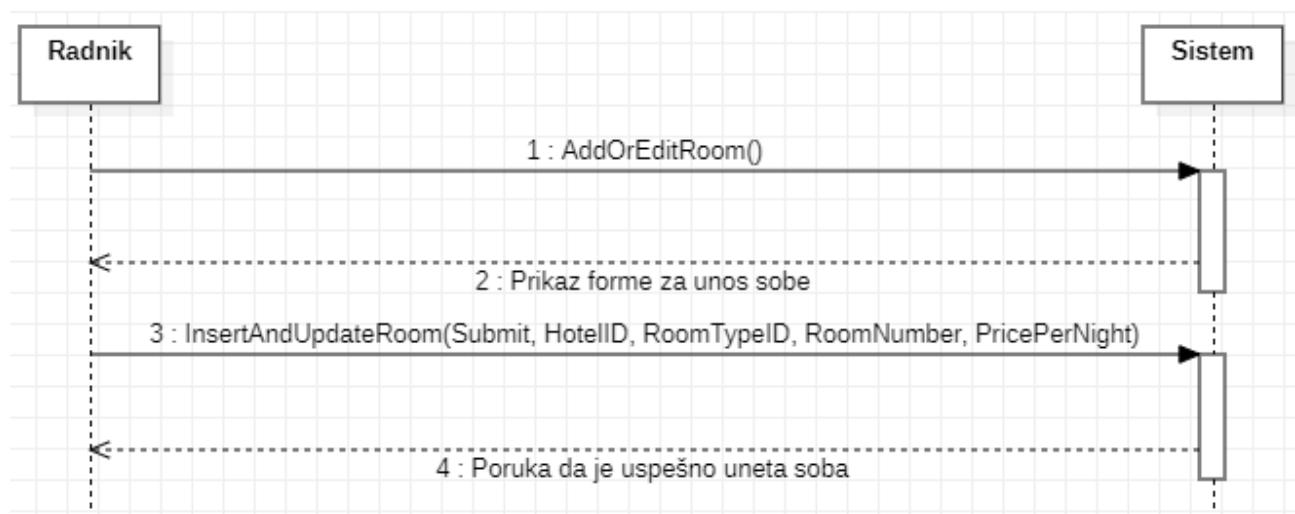
Room Number
500

Price per Night
250

Add Room to Hotel

5. Sistem obradjuje podatke (SO)
6. Sistem prikazuje poruku o uspešnom unosu sobe (IA)

The new room has been added!



Alternativni scenario:

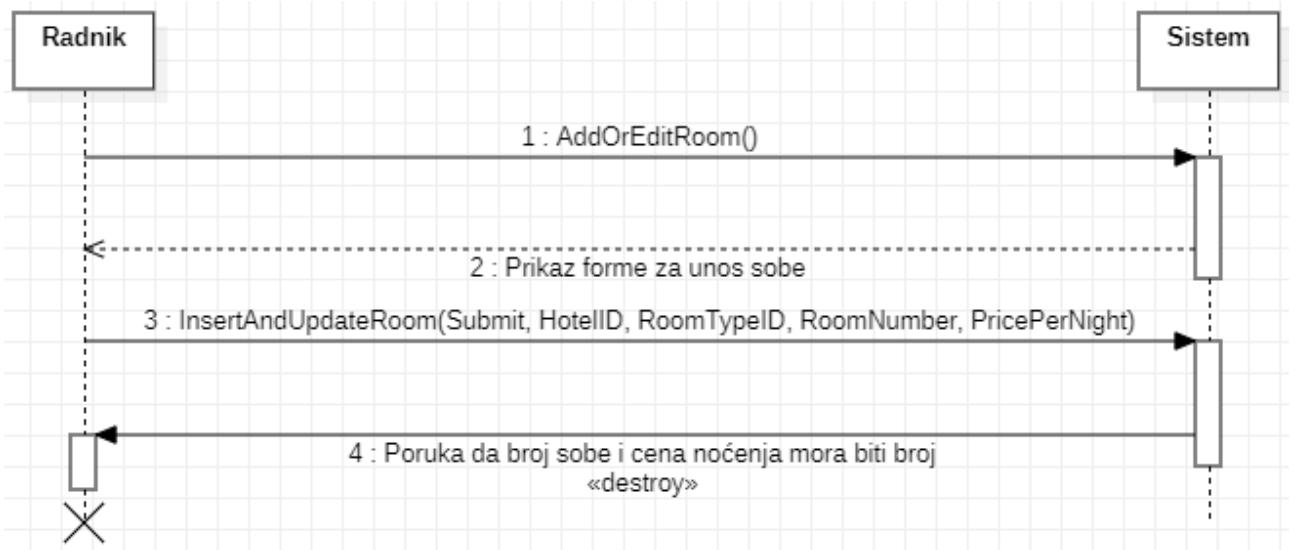
- 5.1. Radnik pri unošenju broja sobe i cene po noći nije uneo brojeve i sistem ga obaveštava o tome (IA)

Room Number
rrr

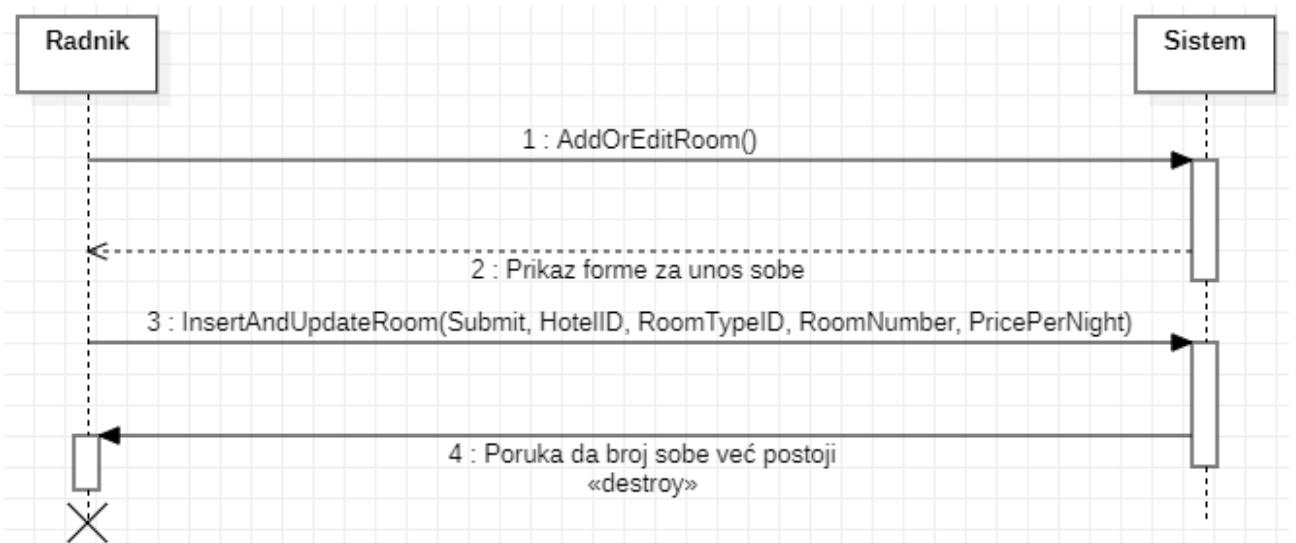
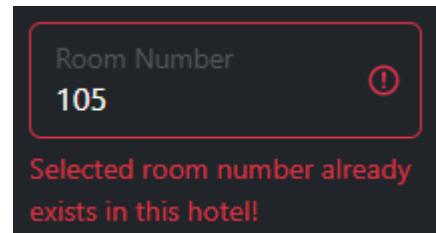
Price per Night
r

Incorrect value, room number has to be a whole number!

Incorrect value, price per night has to be a real number!



5.2. Radnik je uneo broj sobe koji već postoji u hotelu i sistem vraća grešku (IA)



Uvedene su sistemske forme:

1. InsertAndUpdateRoom(Submit, HotelID, RoomTypeID, RoomNumber, PricePerNight)

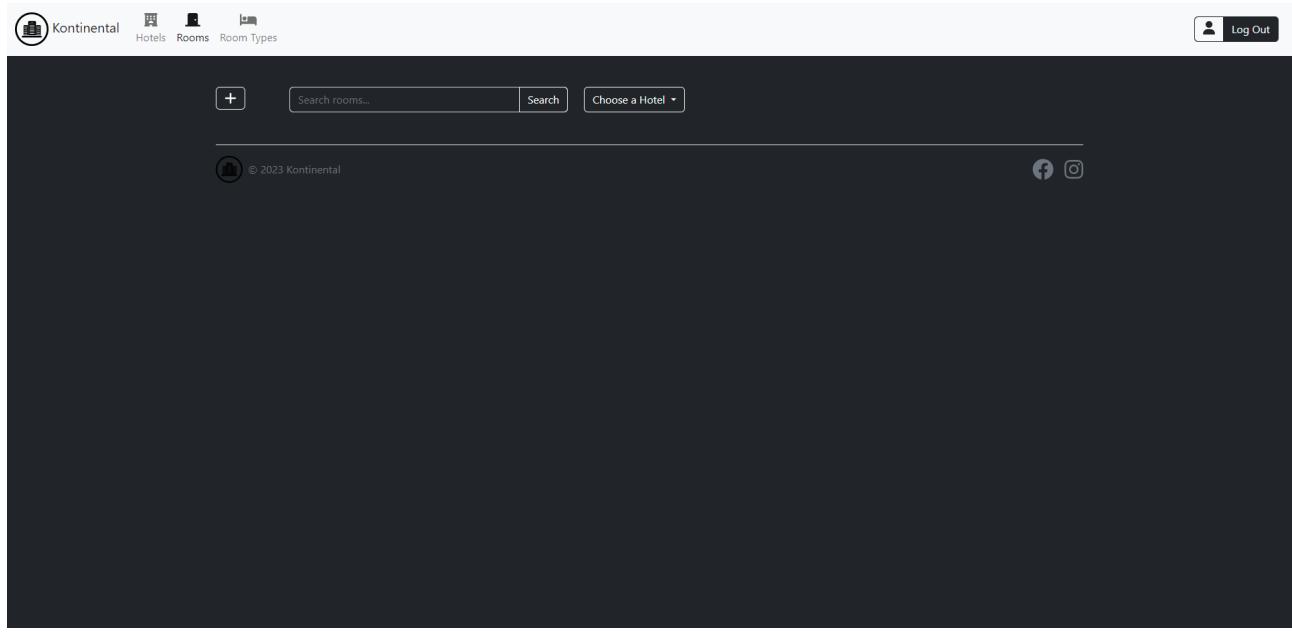
SK11: IZMENA SOBE

Naziv: Izmena sobe u hotelu

Aktori: Menadžer, Administrator

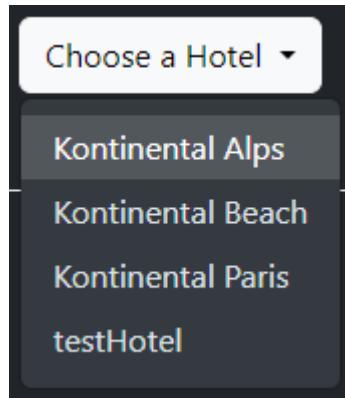
Učesnici: Menadžer, Administrator, Sistem

Preduslovi: Radnik je ulogovan. Administrator je na stranici za izmenu soba gde bira u kom hotelu će da menja sobe. Menadžer je na stranici izmena soba gde je već automatski izabran njegov hotel.



Osnovni scenario:

1. Administrator bira u kom hotelu želi da menja sobe (APSO)



2. Sistem obradjuje podatke (SO)
3. Sistem prikazuje sobe koje se nalaze u tom hotelu. Menadžer je automatski doveden na ovaj korak čim je otišao na stranicu za prikaz svih soba u hotelu (IA)

The screenshot shows a dark-themed web application for managing hotel rooms. At the top, there's a navigation bar with icons for 'Hotels', 'Rooms', and 'Room Types', and a 'Log Out' button. Below the navigation is a search bar with a placeholder 'Search rooms...', a 'Search' button, and a 'Choose a Hotel' dropdown. A '+' button is located above the search bar. The main area is titled 'Kontinental Alps' and displays a grid of 12 room cards, each containing room number, description, price, and edit/delete icons.

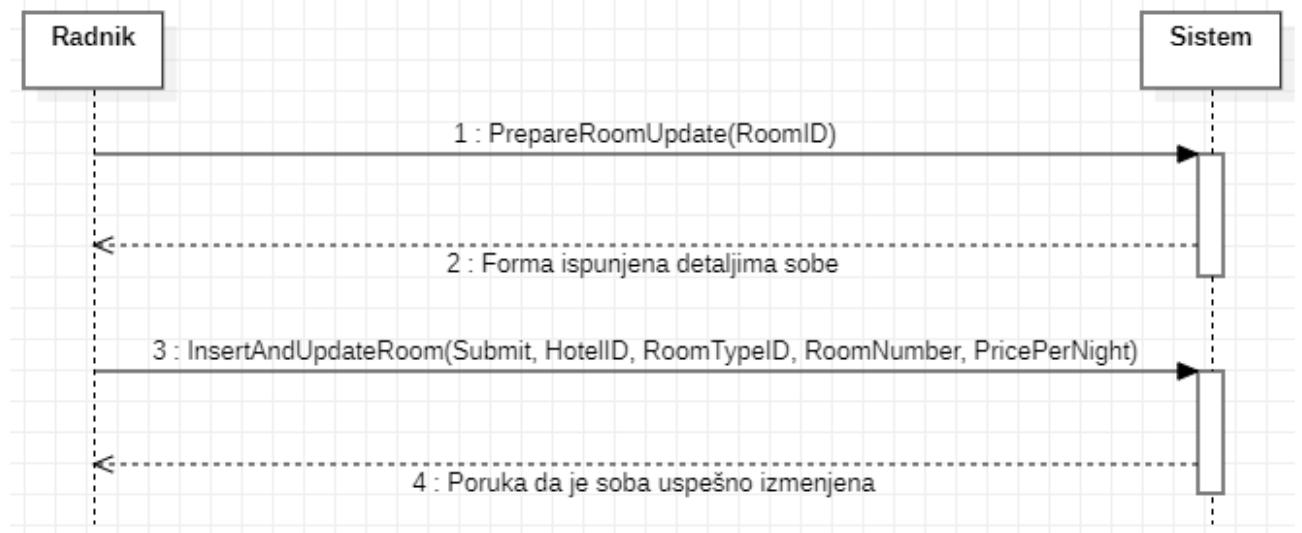
Room Number	Description	Price per Night
101	1x Single Bed No Kitchen Shower	€80.00
102	1x Single Bed No Kitchen Shower	€80.00
103	1x Single Bed No Kitchen Shower	€80.00
104	1x Single Bed No Kitchen Shower	€80.00
105	1x Single Bed No Kitchen Shower	€80.00
106	1x Double Bed Semi-furnished Kitchen Bath	€80.00
107	1x Double Bed Semi-furnished Kitchen Bath	€80.00
108	1x Double Bed Semi-furnished Kitchen Bath	€80.00
109	1x Double Bed Semi-furnished Kitchen Bath	€90.00
110	1x Double Bed Semi-furnished Kitchen Bath	€90.00
201	2x Single Beds Fully-furnished Kitchen Shower	€100.00
202	2x Single Beds Fully-furnished Kitchen Shower	€100.00

4. Radnik bira koju sobu želi da izmeni i klikće na dugme za izmenu (APSO)
5. Sistem generiše popunjenu formu sa detaljima sobe (SO)
6. Sistem prikazuje formu. Menadžer će već u prvom polju imati izabran svoj hotel i ne može da ga promeni. Administrator će imati kao dole prikazano i može da bira bilo koji hotel. (IA)

The screenshot shows a modal dialog titled 'Edit Room'. It has two tabs: 'Hotel' and 'Room Type'. The 'Hotel' tab is selected, showing a dropdown menu with 'Select One' option. The 'Room Type' tab is also visible. Below these tabs are input fields for 'Room Number' (containing '101') and 'Price per Night' (containing '80.0'). At the bottom is a large blue 'Edit Room' button.

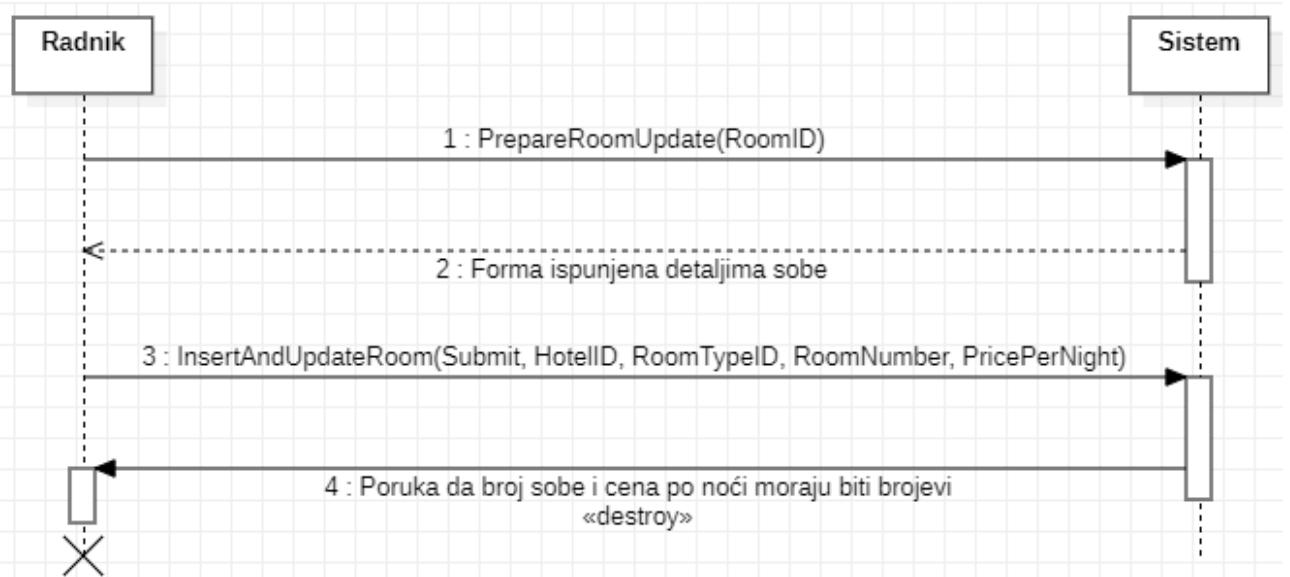
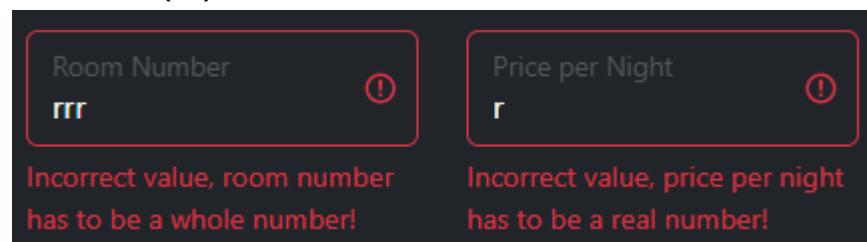
7. Nakon što je radnik promenio podatke u poljima kako želi, klikće na dugme "Edit Room" (APUSO)
8. Sistem obradjuje podatke (SO)
9. Sistem prikazuje poruku da je soba uspešno izmenjena (IA)

The selected room's details have been updated!

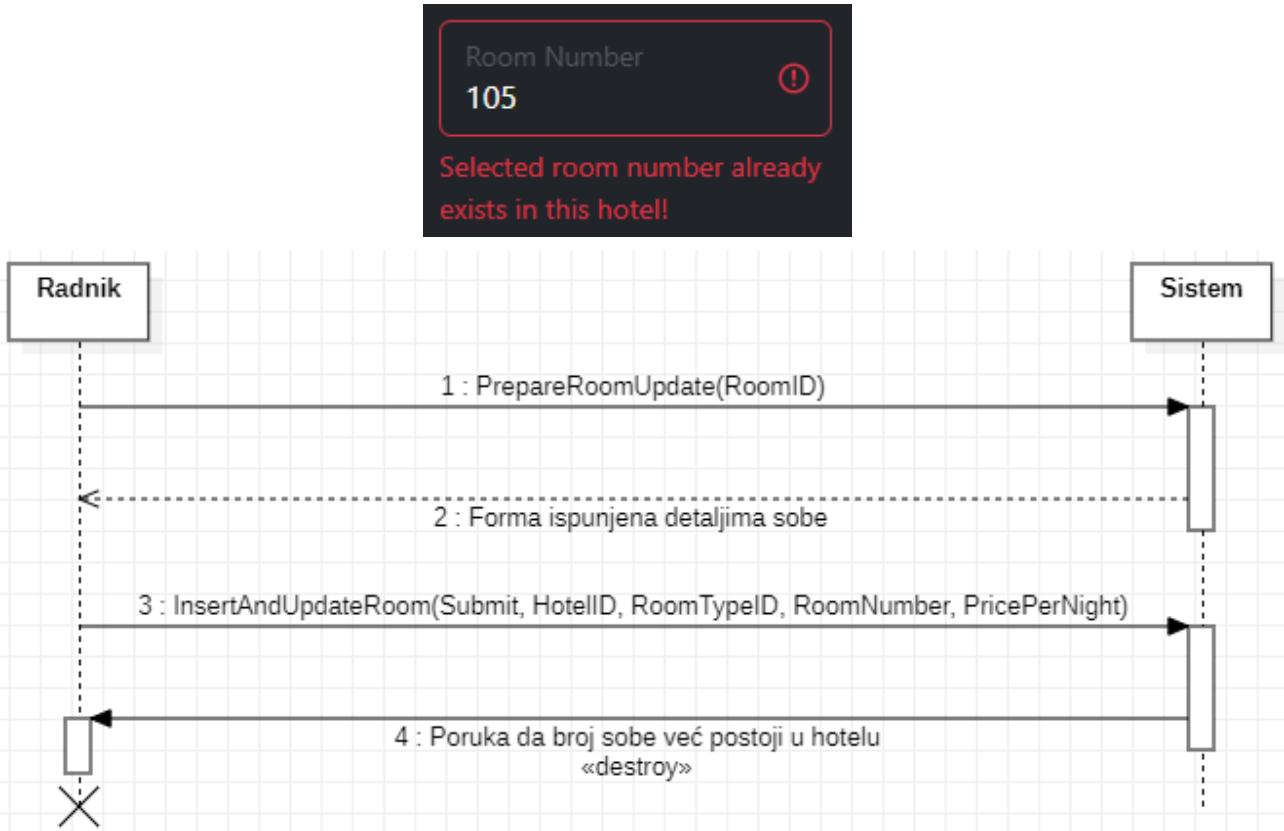


Alternativni scenario:

- 8.1. Radnik pri unošenju broja sobe i cene po noći nije uneo brojeve i sistem ga obaveštava o tome (IA)



8.2. Radnik je uneo broj sobe koji već postoji u hotelu i sistem vraća grešku (IA)



Uvedene su sistemske operacije:

1. PrepareRoomUpdate(RoomID)

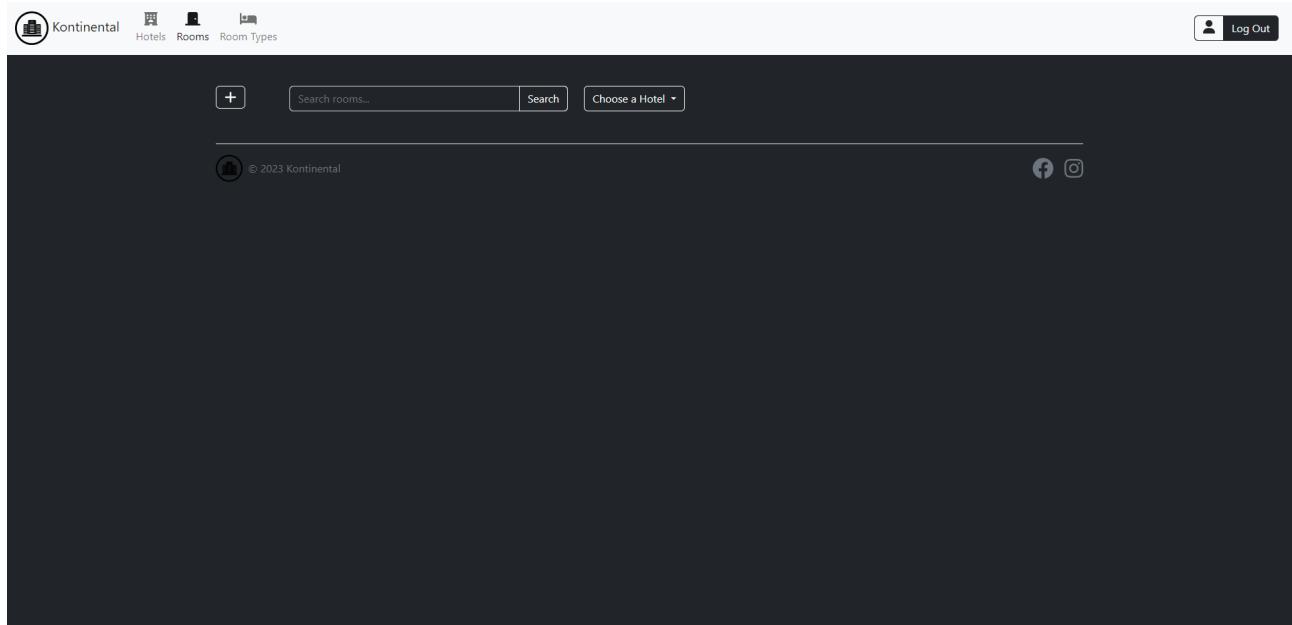
SK12: BRISANJE SOBE

Naziv: Brisanje sobe iz hotela

Aktori: Menadžer, Administrator

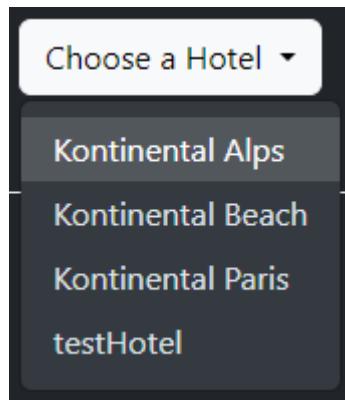
Učesnici: Menadžer, Administrator, Sistem

Preduslovi: Radnik je ulogovan i prešao je na stranicu za prikaz soba



Osnovni scenario:

- Administrator bira u kom hotelu želi da briše sobe (APSO)



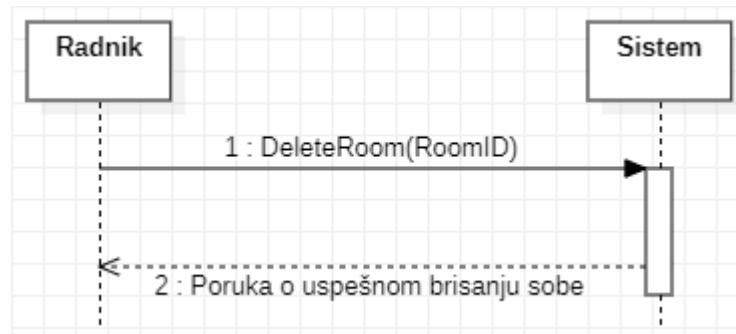
- Sistem obradjuje podatke (SO)
- Sistem prikazuje sobe koje se nalaze u tom hotelu. Menadžer je automatski doveden na ovaj korak čim je otisao na stranicu za prikaz svih soba u hotelu (IA)

The screenshot shows a hotel management interface for 'Kontinental Alps'. At the top, there are navigation links for 'Hotels', 'Rooms', and 'Room Types', along with a 'Log Out' button. Below the header, there's a search bar with 'Search rooms...' and a 'Search' button, followed by a dropdown menu for 'Choose a Hotel'. The main area displays a grid of room types:

Room ID	Description	Price per Night	Actions
101	1x Single Bed No Kitchen Shower	€80.00	
102	1x Single Bed No Kitchen Shower	€80.00	
103	1x Single Bed No Kitchen Shower	€80.00	
104	1x Single Bed No Kitchen Shower	€80.00	
105	1x Single Bed No Kitchen Shower	€80.00	
106	1x Double Bed Semi-furnished Kitchen Bath	€80.00	
107	1x Double Bed Semi-furnished Kitchen Bath	€80.00	
108	1x Double Bed Semi-furnished Kitchen Bath	€80.00	
109	1x Double Bed Semi-furnished Kitchen Bath	€90.00	
110	1x Double Bed Semi-furnished Kitchen Bath	€90.00	
201	2x Single Beds Fully-furnished Kitchen Shower	€100.00	
202	2x Single Beds Fully-furnished Kitchen Shower	€100.00	

4. Radnik bira koju sobu želi da obriše i klikće na dugme za brisanje (APSO)
5. Sistem briše sobu (SO)
6. Sistem prikazuje poruku o uspešnom brisanju. (IA)

The selected room has been deleted!



Uvedene su sistemske operacije:

1. DeleteRoom(RoomID)

SK13: DODAVANJE TIPOA SOBE

Naziv: Dodavanje tipa sobe

Aktori: Menadžer, Administrator

Učesnici: Menadžer, Administrator, Sistem

Preduslovi: Radnik je ulogovan i prešao je na stranicu za prikaz svih tipova soba

The screenshot shows a web-based application for managing room types. At the top, there is a navigation bar with icons for Hotel, Rooms, and Room Types, and a Log Out button. Below the navigation bar, there is a search bar labeled "Search room types..." and a "Search" button. A "+" button is located at the top left of the main content area. The main content area displays eight room type configurations in a grid:

Room Type Configuration	Description	Number of beds	Bed type	Kitchen	Bathroom	TV	Actions
1x Double Bed Semi-furnished Kitchen Bath	Number of beds: 2 Bed type: Double Kitchen: Semi-furnished Bathroom: Bath TV: Yes	2	Double	Semi-furnished	Bath	Yes	
1x King Size Bed Fully-furnished Kitchen Bath	Number of beds: 2 Bed type: King Kitchen: Fully-furnished Bathroom: Bath TV: Yes	2	King	Fully-furnished	Bath	Yes	
1x Queen Size Bed Fully-furnished Kitchen Bath	Number of beds: 2 Bed type: Queen Kitchen: Fully-furnished Bathroom: Bath TV: Yes	2	Queen	Fully-furnished	Bath	Yes	
1x Single Bed No Kitchen Shower	Number of beds: 1 Bed type: Single Kitchen: None Bathroom: Shower TV: Yes	1	Single	None	Shower	Yes	
1x Single/Double Combo Semi-furnished Kitchen Shower	Number of beds: 3 Bed type: Single + Double Kitchen: Semi-furnished Bathroom: Shower TV: No	3	Single + Double	Semi-furnished	Shower	No	
2x Double Beds Fully-furnished Kitchen Bath	Number of beds: 4 Bed type: Double Kitchen: Fully-furnished Bathroom: Bath TV: Yes	4	Double	Fully-furnished	Bath	Yes	
2x King Size Beds Fully-furnished Kitchen Bath	Number of beds: 4 Bed type: King Kitchen: Fully-furnished Bathroom: Bath TV: Yes	4	King	Fully-furnished	Bath	Yes	
2x Single Beds Fully-furnished Kitchen Shower	Number of beds: 2 Bed type: Single Kitchen: Fully-furnished Bathroom: Shower TV: No	2	Single	Fully-furnished	Shower	No	

Osnovni scenario:

1. Radnik klikće na dugme sa plusom (APSO)
2. Sistem obradjuje podatke (SO)
3. Sistem prikazuje formu za unos novog tipa sobe (IA)

Add New Room Type

Bed Type	Number of Beds
<input type="button" value="Select One"/>	<input type="text"/>
Kitchen Type	Bathroom Type
<input type="button" value="Select One"/>	<input type="button" value="Select One"/>
<input checked="" type="checkbox"/> TV	
<input type="text" value="Room Description"/>	
<input type="button" value="Add Room Type"/>	

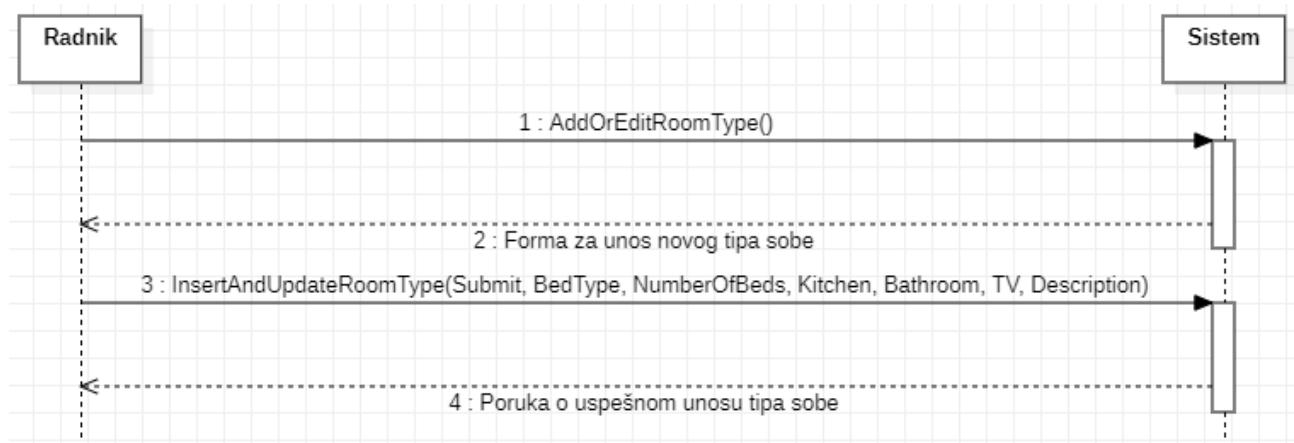
4. Radnik popunjava formu i klikće na dugme "Add Room Type" (APUSO)

Add New Room Type

Bed Type	Number of Beds
Single	3
Kitchen Type	Bathroom Type
Fully-furnished	Shower
<input checked="" type="checkbox"/> TV	
Room Description <p> Lorem ipsum dolor sit amet, consectetur adipiscing elit. In aliquet eget libero ac tincidunt. Nam ut lacus vitae nisl condimentum tempus. Nullam scelerisque erat ac aliquet laoreet. Nullam vestibulum id tortor nec tincidunt. Ut euismod tincidunt urna, ac tempus ipsum scelerisque sed. Vestibulum non finibus</p>	
<input type="button" value="Add Room Type"/>	

5. Sistem obradjuje podatke (SO)
6. Sistem prikazuje poruku o uspešnom unosu novog tipa sobe (IA)

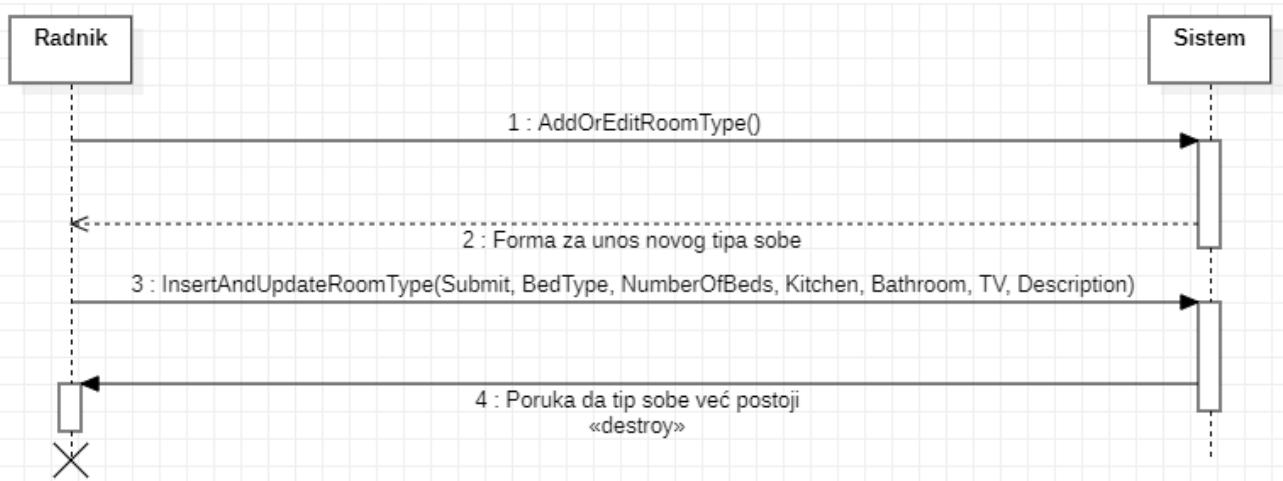
 The new room type has been added!



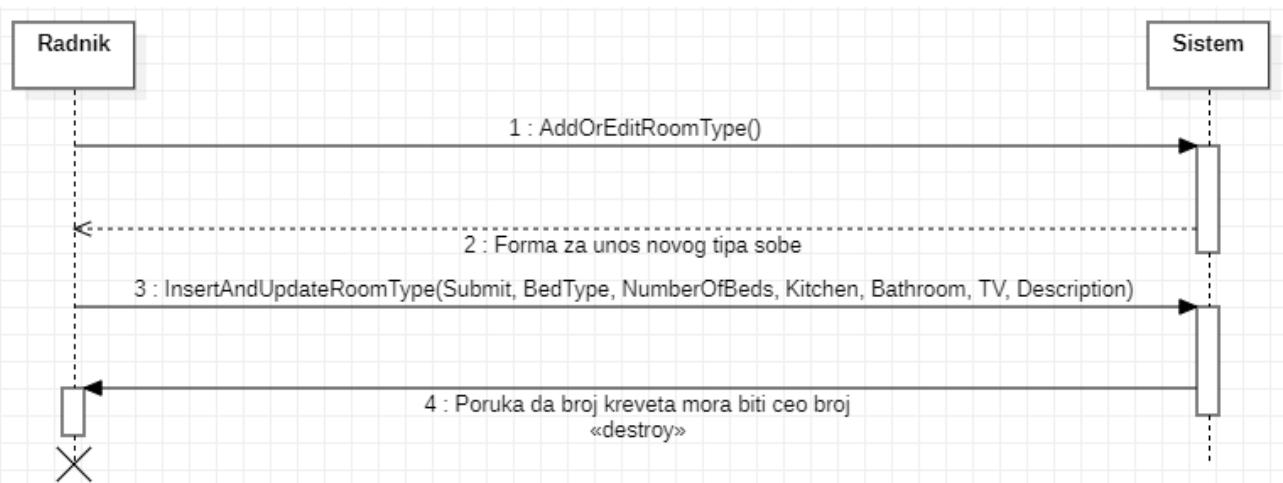
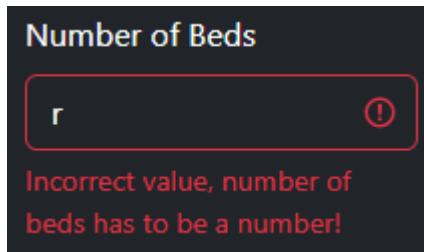
Alternativni scenario:

5.1. Radnik je napravio tip sobe koji već postoji i sistem ga upozorava o tome (IA)

 Selected room type already exists!



5.2. Radnik je pri unosu stavio da broj kreveta nije broj i sistem vraća grešku (IA)



Uvedene su sistemske operacije:

1. InsertAndUpdateRoomType(Submit, BedType, NumberOfBeds, Kitchen, Bathroom, TV, Description)

SK14: IZMENA TIPOA SOBE

Naziv: Izmena tipa sobe

Aktori: Menadžer, Administrator

Učesnici: Menadžer, Administrator, Sistem

Preduslovi: Radnik je ulogovan i prešao je na stranicu za prikaz svih tipova soba

The screenshot shows a web-based application for managing room types. At the top, there is a navigation bar with icons for Hotel, Rooms, and Room Types, and a Log Out button. Below the navigation bar, there is a search bar labeled "Search room types..." and a "Search" button. A "+" button is located at the top left of the main content area. The main content area displays eight room type configurations in a grid:

Room Type Configuration	Description	Number of beds	Bed type	Kitchen	Bathroom	TV	Actions
1x Double Bed Semi-furnished Kitchen Bath	Number of beds: 2 Bed type: Double Kitchen: Semi-furnished Bathroom: Bath TV: Yes	2	Double	Semi-furnished	Bath	Yes	
1x King Size Bed Fully-furnished Kitchen Bath	Number of beds: 2 Bed type: King Kitchen: Fully-furnished Bathroom: Bath TV: Yes	2	King	Fully-furnished	Bath	Yes	
1x Queen Size Bed Fully-furnished Kitchen Bath	Number of beds: 2 Bed type: Queen Kitchen: Fully-furnished Bathroom: Bath TV: Yes	2	Queen	Fully-furnished	Bath	Yes	
1x Single Bed No Kitchen Shower	Number of beds: 1 Bed type: Single Kitchen: None Bathroom: Shower TV: Yes	1	Single	None	Shower	Yes	
1x Single/Double Combo Semi-furnished Kitchen Shower	Number of beds: 3 Bed type: Single + Double Kitchen: Semi-furnished Bathroom: Shower TV: No	3	Single + Double	Semi-furnished	Shower	No	
2x Double Beds Fully-furnished Kitchen Bath	Number of beds: 4 Bed type: Double Kitchen: Fully-furnished Bathroom: Bath TV: Yes	4	Double	Fully-furnished	Bath	Yes	
2x King Size Beds Fully-furnished Kitchen Bath	Number of beds: 4 Bed type: King Kitchen: Fully-furnished Bathroom: Bath TV: Yes	4	King	Fully-furnished	Bath	Yes	
2x Single Beds Fully-furnished Kitchen Shower	Number of beds: 2 Bed type: Single Kitchen: Fully-furnished Bathroom: Shower TV: No	2	Single	Fully-furnished	Shower	No	

Osnovni scenario:

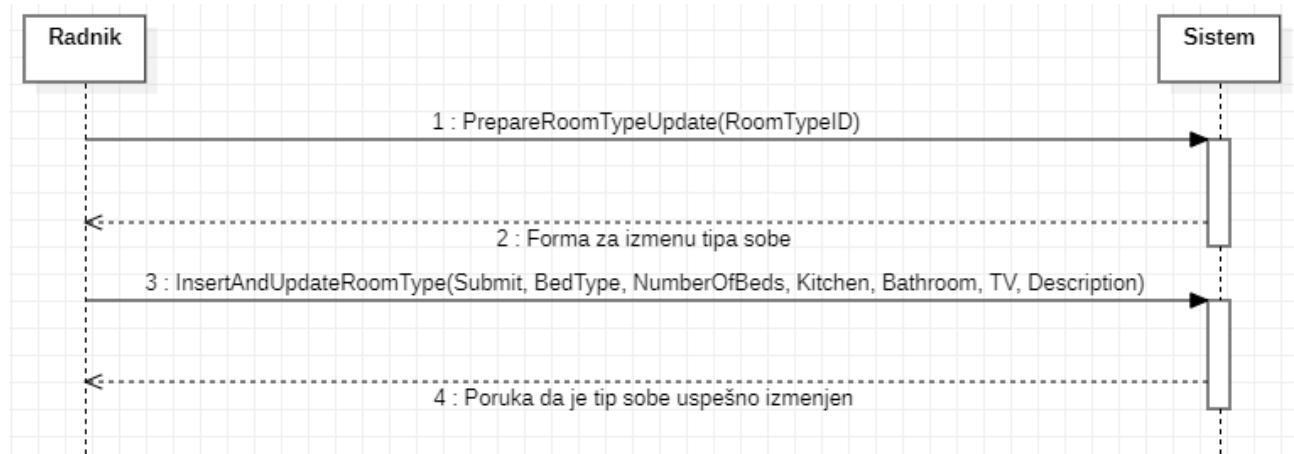
1. Radnik bira koji tip sobe želi da menja i klikće na dugme za izmenu (APSO)
2. Sistem generiše popunjenu formu sa detaljima tipa sobe (SO)
3. Sistem prikazuje formu (IA)

Edit Room Type

Bed Type <input type="button" value="Single"/>	Number of Beds <input type="text" value="3"/>
Kitchen Type <input type="button" value="Fully-furnished"/>	Bathroom Type <input type="button" value="Shower"/>
<input checked="" type="checkbox"/> TV	
Room Description <p>Nullam orci nisi, tincidunt non congue suscipit, gravida vel purus. Mauris at elementum augue. Duis eleifend augue at enim tincidunt blandit. Curabitur in ultrices metus.</p>	
<input type="button" value="Edit Room Type"/>	

4. Radnik nakon što je izmenio podatke koje želi, klikće na dugme "Edit Room Type" (APUSO)
5. Sistem obradjuje podatke (SO)
6. Sistem prikazuje poruku o uspešnoj izmeni tipa sobe (IA)

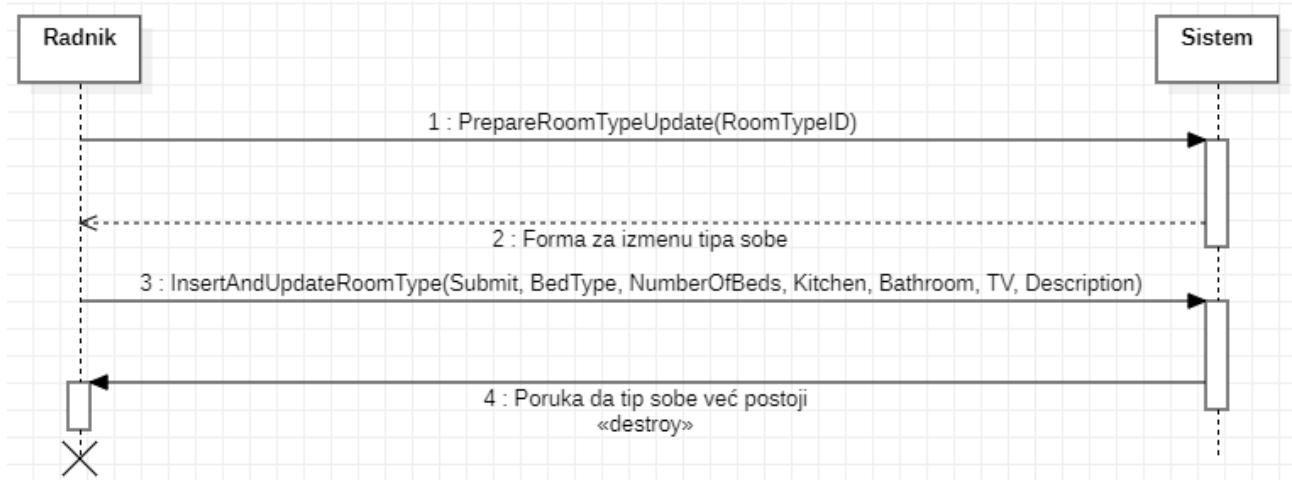
 The selected room type details have been updated!



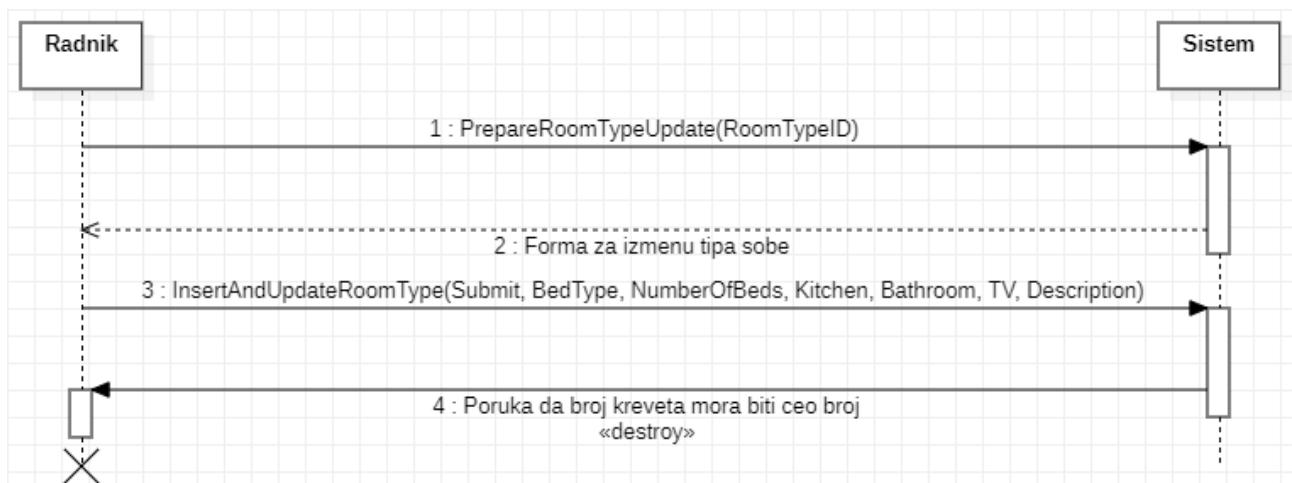
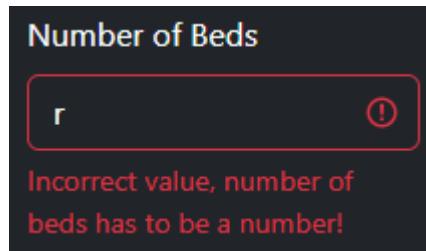
Alternativni scenario:

5.1. Radnik je pri izmeni tip sobe promenio u tip sobe koji već postoji i sistem ga upozorava o tome (IA)

 Selected room type already exists!



5.2. Radnik je pri izmeni stavio da broj kreveta nije broj i sistem vraća grešku (IA)



Uvedene su sistemske operacije:

1. PrepareRoomTypeUpdate(RoomTypeID)

SK15: BRISANJE TIPOA SOBE

Naziv: Brisanje tipa sobe

Aktori: Menadžer, Administrator

Učesnici: Menadžer, Administrator, Sistem

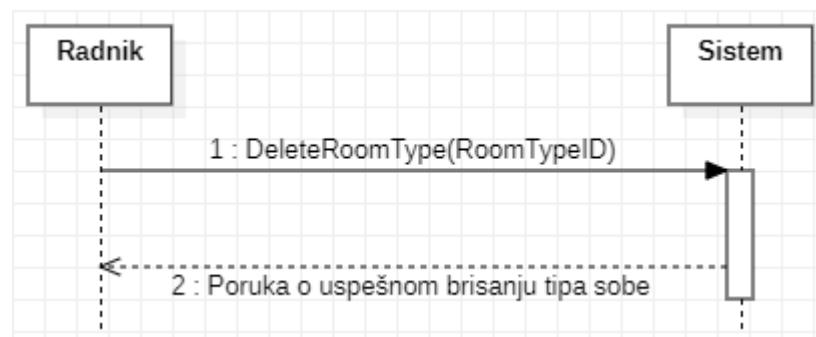
Preduslovi: Radnik je ulogovan i prešao je na stranicu za prikaz svih tipova soba

Room Type Details	Room Type Details	Room Type Details	Room Type Details
1x Double Bed Semi-furnished Kitchen Bath Number of beds: 2 Bed type: Double Kitchen: Semi-furnished Bathroom: Bath TV: Yes	1x King Size Bed Fully-furnished Kitchen Bath Number of beds: 2 Bed type: King Kitchen: Fully-furnished Bathroom: Bath TV: Yes	1x Queen Size Bed Fully-furnished Kitchen Bath Number of beds: 2 Bed type: Queen Kitchen: Fully-furnished Bathroom: Bath TV: Yes	1x Single Bed No Kitchen Shower Number of beds: 1 Bed type: Single Kitchen: None Bathroom: Shower TV: Yes
1x Single/Double Combo Semi-furnished Kitchen Shower Number of beds: 3 Bed type: Single + Double Kitchen: Semi-furnished Bathroom: Shower TV: No	2x Double Beds Fully-furnished Kitchen Bath Number of beds: 4 Bed type: Double Kitchen: Fully-furnished Bathroom: Bath TV: Yes	2x King Size Beds Fully-furnished Kitchen Bath Number of beds: 4 Bed type: King Kitchen: Fully-furnished Bathroom: Bath TV: Yes	2x Single Beds Fully-furnished Kitchen Shower Number of beds: 2 Bed type: Single Kitchen: Fully-furnished Bathroom: Shower TV: No

Osnovni scenario:

1. Radnik bira tip sobe koji želi da obriše i klikće na dugme za brisanje (APSO)
2. Sistem briše tip sobe (SO)
3. Sistem prikazuje poruku da je tip sobe uspešno obrisan (IA)

The selected room type has been deleted!



Uvedene su sistemske operacije:

1. DeleteRoomType(RoomTypeID)

3.4. ADMINISTRATOR

SK16: DODAVANJE HOTELA

Naziv: Dodavanje novog hotela

Aktori: Administrator

Učesnici: Administrator, Sistem

Preduslovi: Administrator je ulogovan i prešao je na stranicu za prikaz svih hotela

The screenshot shows a dark-themed web application for hotel management. At the top, there is a navigation bar with icons for 'Hotels', 'Rooms', and 'Room Types'. On the right side of the header is a 'Log Out' button. Below the header, there is a search bar with placeholder text 'Search hotels...' and a 'Search' button. A '+' button is located in the top-left corner of the main content area. The main content displays three hotel cards in a grid:

- Kontinental Alps**
France, Tignes
Stars: 4
Parking spots: 150
- Kontinental Beach**
France, Nice
Stars: 5
Parking spots: 350
- Kontinental Paris**
France, Paris
Stars: 4
Parking spots: 250

Each card includes edit and delete icons at the bottom. At the bottom of the page, there is a footer with the Kontinental logo and the text '© 2023 Kontinental'. To the right of the footer are social media links for Facebook and Instagram.

Osnovni scenario:

1. Administrator klikće na dugme sa plusom (APSO)
2. Sistem obradjuje podatke (SO)

3. Sistem prikazuje formu za unos novog hotela (IA)

Add New Hotel

Hotel Manager:

Select One

Hotel Name

Country:

City

Number of stars

Parking spots

Hotel Picture

Hotel Description

Add Hotel

4. Radnik popunjava formu i klikće dugme "Add Hotel" (APUSO)

Add New Hotel

Hotel Manager:

M1004 - Katarina Katic

Hotel Name
Kontinental Venice

Country:
Italy

City
Venice

Number of stars
5

Parking spots
175

Hotel Picture
hotelVenice.webp

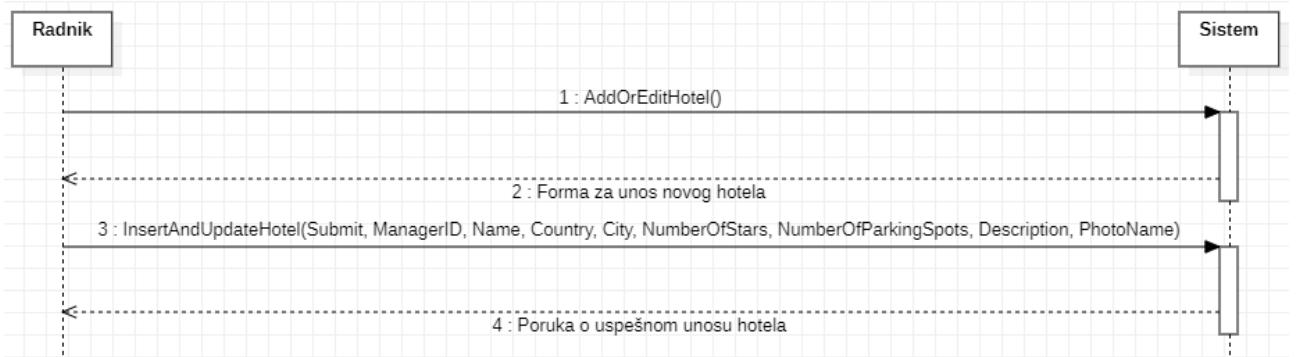
Hotel Description

Suspendisse porttitor nibh ipsum. Curabitur tempus sagittis tortor in dignissim. Nullam sit amet faucibus ante. Integer ornare eleifend nisi ac vehicula. Fusce scelerisque velit velit. Quisque arcu est, facilisis vel facilisis ut, ultrices eu arcu. Ut sollicitudin a tellus id molestie. Morbi non est vulputate, lacinia diam vitae,

Add Hotel

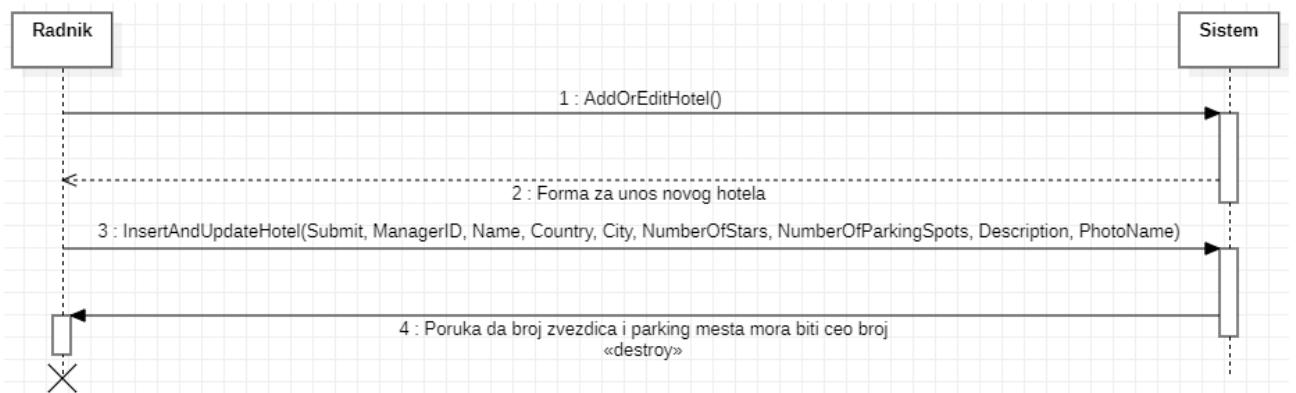
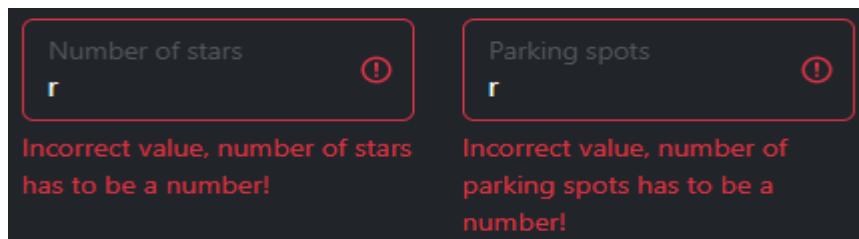
5. Sistem obradjuje podatke (SO)
6. Sistem prikazuje poruku o uspešnom unosu hotela (IA)

 A new hotel has been added!



Alternativni scenario:

- 5.1. Radnik za broj zvezdica ili broj parking mesta nije uneo ceo broj i obavešten je o tome (IA)



Nisu uvedene nove sistemske operacije.

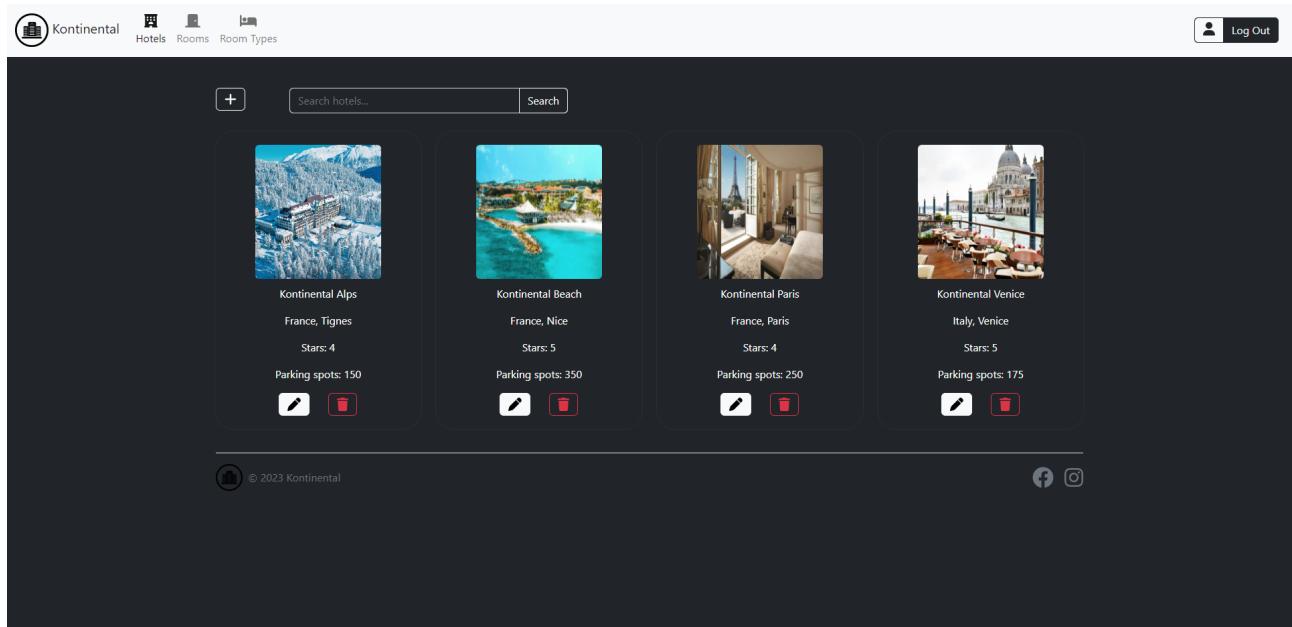
SK17: BRISANJE HOTELA

Naziv: Brisanje hotela

Aktori: Administrator

Učesnici: Administrator, Sistem

Preduslovi: Administrator je ulogovan i prešao je na stranicu za prikaz svih hotela



Osnovni scenario:

1. Administrator bira hotel koji želi da obriše i klikće na dugme za brisanje (APSO)
2. Sistem briše hotel (SO)
3. Sistem prikazuje poruku o uspešnom brisanju hotela (IA)

The hotel has been deleted!



Uvedene su sistemske operacije:

1. DeleteHotel(HotelID)

4. DEFINISANJE UGOVORA O SISTEMSKIM OPERACIJAMA I DIJAGRAMI SEKVENCI I KOLABORACIJE ZA SISTEMSKE OPERACIJE

Uočene su sledeće sistemske operacije koje treba projektovati:

1. **Login**(Email, Password)
2. **Signup**(FirstName, LastName, Email, Password, Country, City, Address, PhoneNumber, Birthday)
3. **EditClient**(ID, FirstName, LastName, Email, Password, Country, City, Address, PhoneNumber, Birthday)
4. **SearchHotels**(SearchText)
5. **BrowseRooms**(HotelID)
6. **ShowAvailableRooms**(HotelID, DateFrom, DateTo)
7. **SearchRooms**(SearchText)
8. **FilterRooms**(HotelID, SearchText, DateFrom, BedType, NumberOfBeds, Kitchen, Bathroom)
9. **ReservationForm**(HotelID, RoomTypeID, DateFrom, DateTo)
10. **ReserveRoom**(RoomID, DateFrom, DateTo, FullPrice, ApplyPoints)
11. **DeleteReservation**(ReservationID)
12. **DeleteClient**(ClientID)
13. **PrepareHotelUpdate**(HotelID)
14. **InsertAndUpdateHotel**(Submit, ManagerID, Name, Country, City, NumberOfStars, NumberOfParkingSpots, Description, PhotoName)
15. **InsertAndUpdateRoom**(Submit, HotelID, RoomTypeID, RoomNumber, PricePerNight)
16. **PrepareRoomUpdate**(RoomID)
17. **DeleteRoom**(RoomID)
18. **InsertAndUpdateRoomType**(Submit, BedType, NumberOfBeds, Kitchen, Bathroom, TV, Description)
19. **PrepareRoomTypeUpdate**(RoomTypeID)
20. **DeleteRoomType**(RoomTypeID)
21. **DeleteHotel**(HotelID)

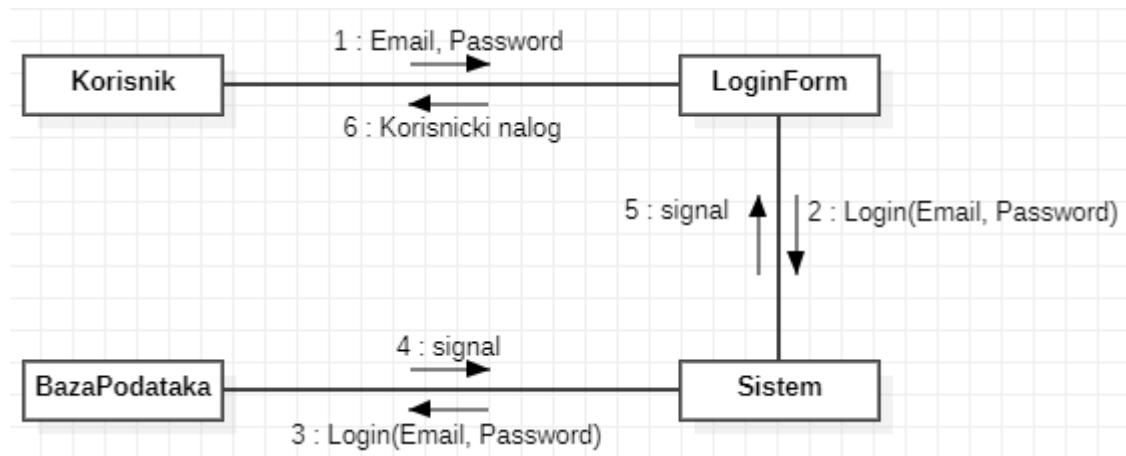
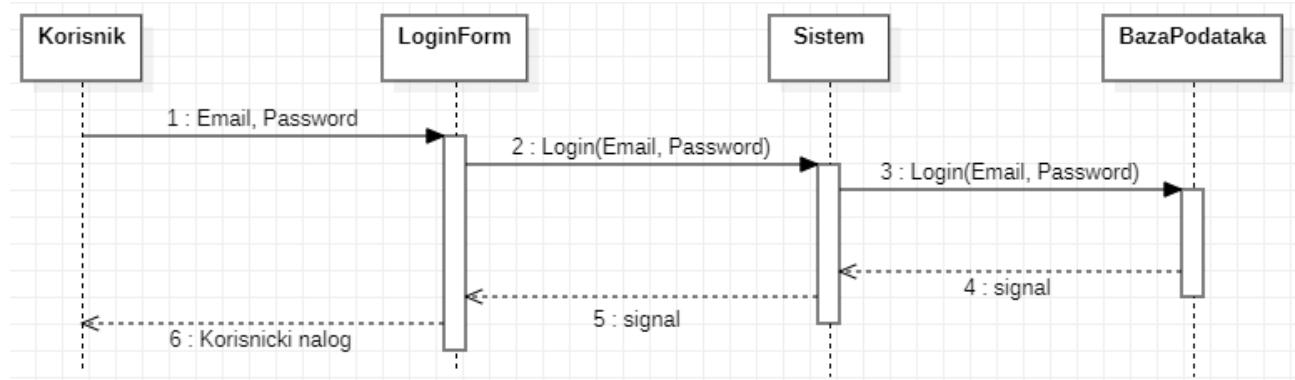
UGOVOR UG1: Login

Operacija: Login>Email, Password : void

Veza sa SK: SK1

Preduslovi: Korisnik postoji u bazi

Postuslovi: Korisnik je ulogovan



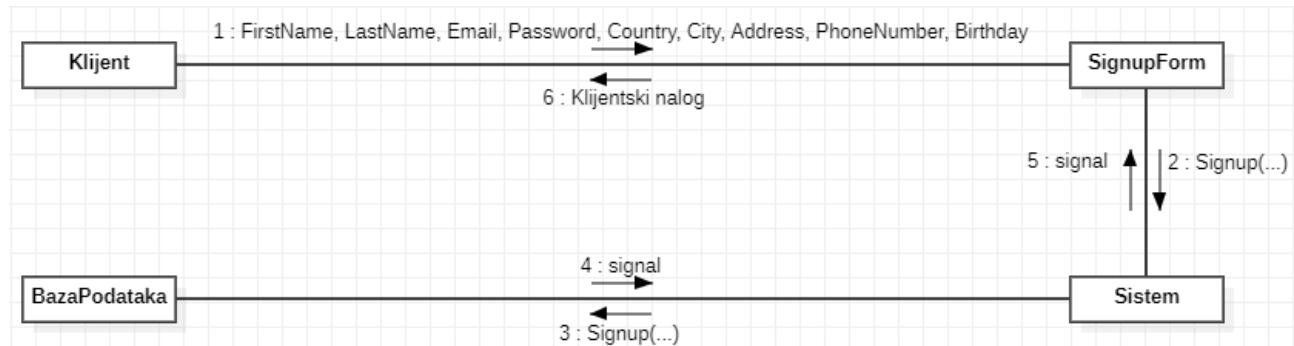
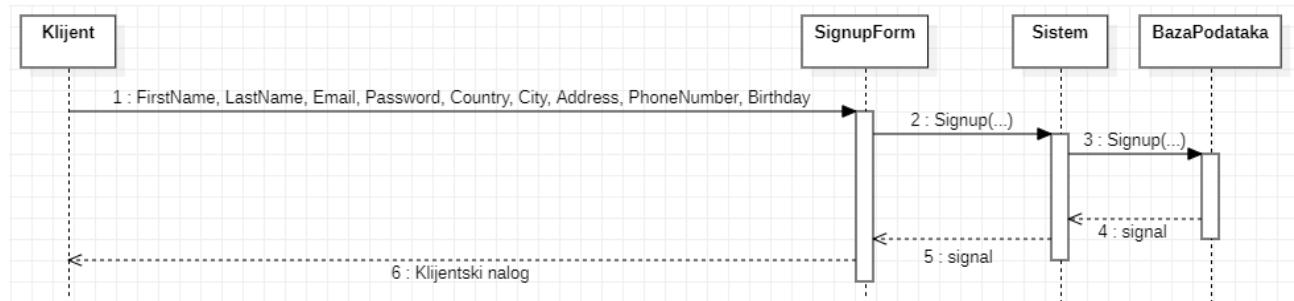
UGOVOR UG2: Signup

Operacija: Signup(FirstName, LastName, Email, Password, Country, City, Address, PhoneNumber, Birthday) : void

Veza sa SK: SK2

Preduslovi: Klijent ne postoji u bazi

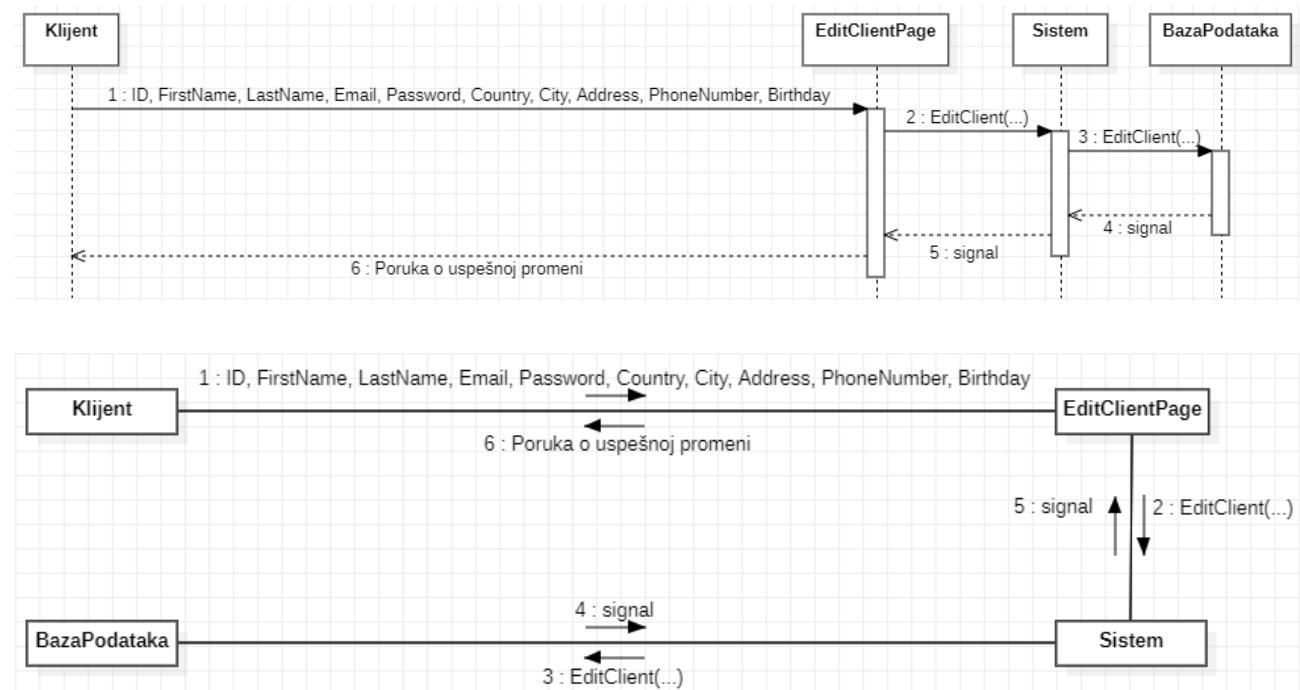
Postuslovi: Napravljen je novi klijent u bazi podataka



UGOVOR UG3: EditClient

Operacija: EditClient(ID, FirstName, LastName, Email, Password, Country, City, Address, PhoneNumber, Birthday) : void
Veza sa SK: SK3

Preduslovi: Klijent postoji u bazi
Postuslovi: Podaci o klijentu su promenjeni



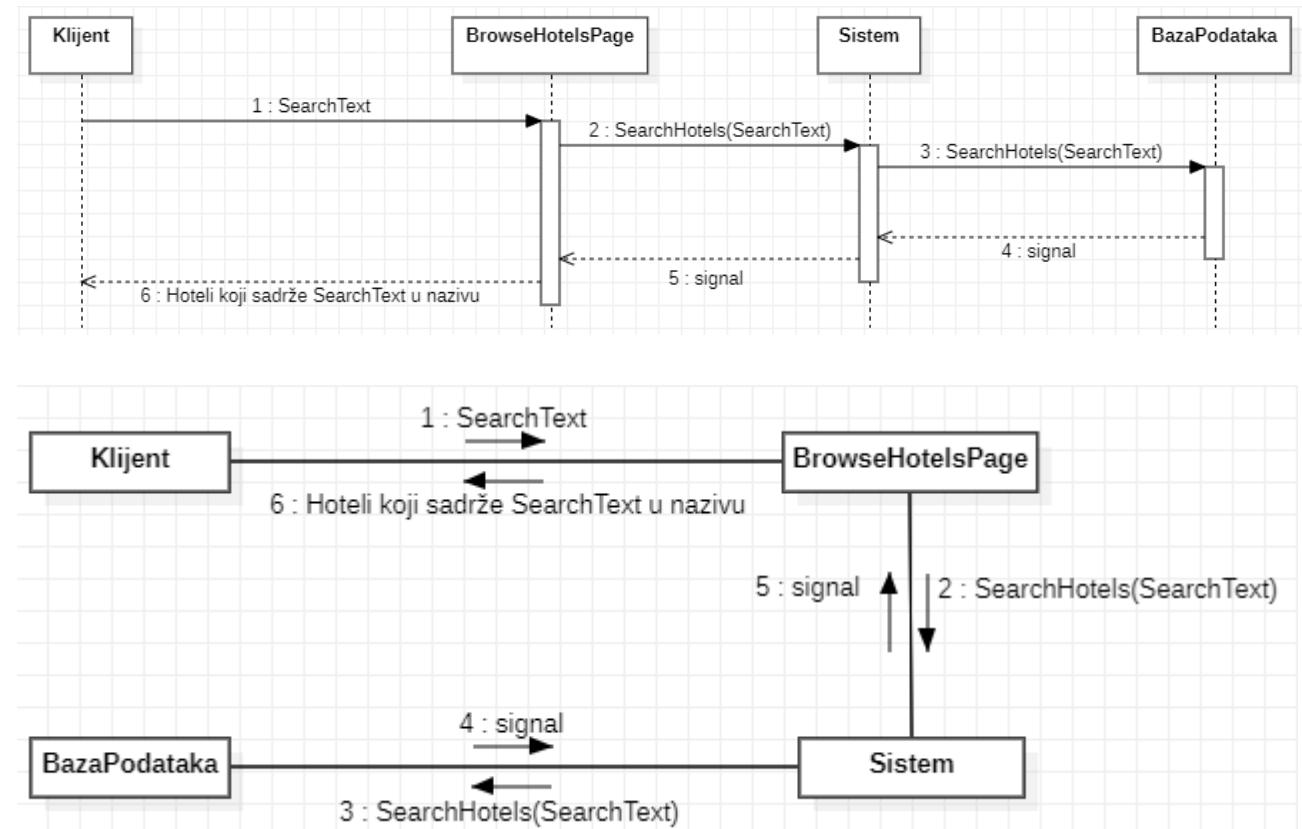
UGOVOR UG4: SearchHotels

Operacija: SearchHotels(SearchText) : ArrayList<Hotel>

Veza sa SK: SK4, SK9, SK16, SK17

Preduslovi: Hoteli postoje u bazi

Postuslovi: Prikazuju se hoteli koji sadrže SearchText u nazivu



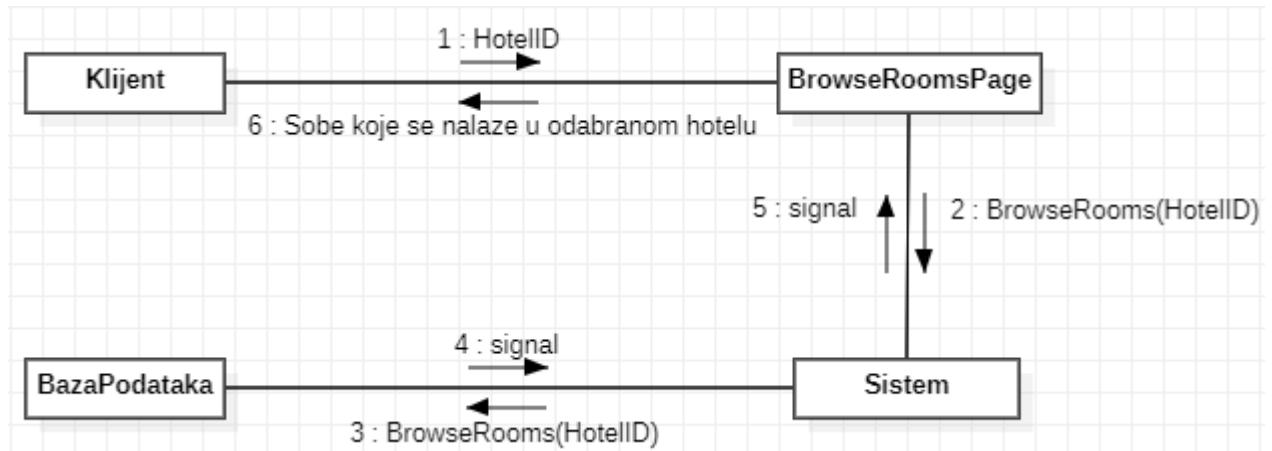
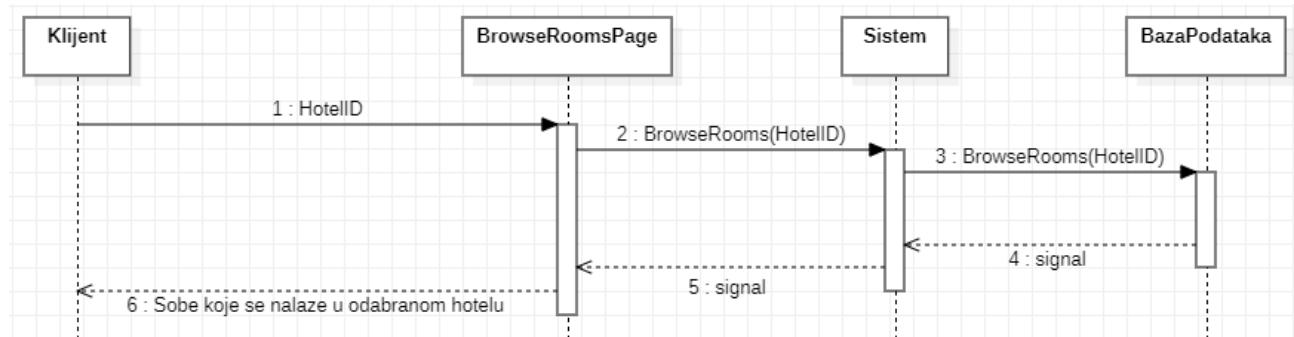
UGOVOR UG5: BrowseRooms

Operacija: BrowseRooms(HotelID) : ArrayList<Room>

Veza sa SK: SK5, SK10, SK11, SK12

Preduslovi: Postoje sobe u bazi

Postuslovi: Prikazane su sobe koje pripadaju određenom hotelu



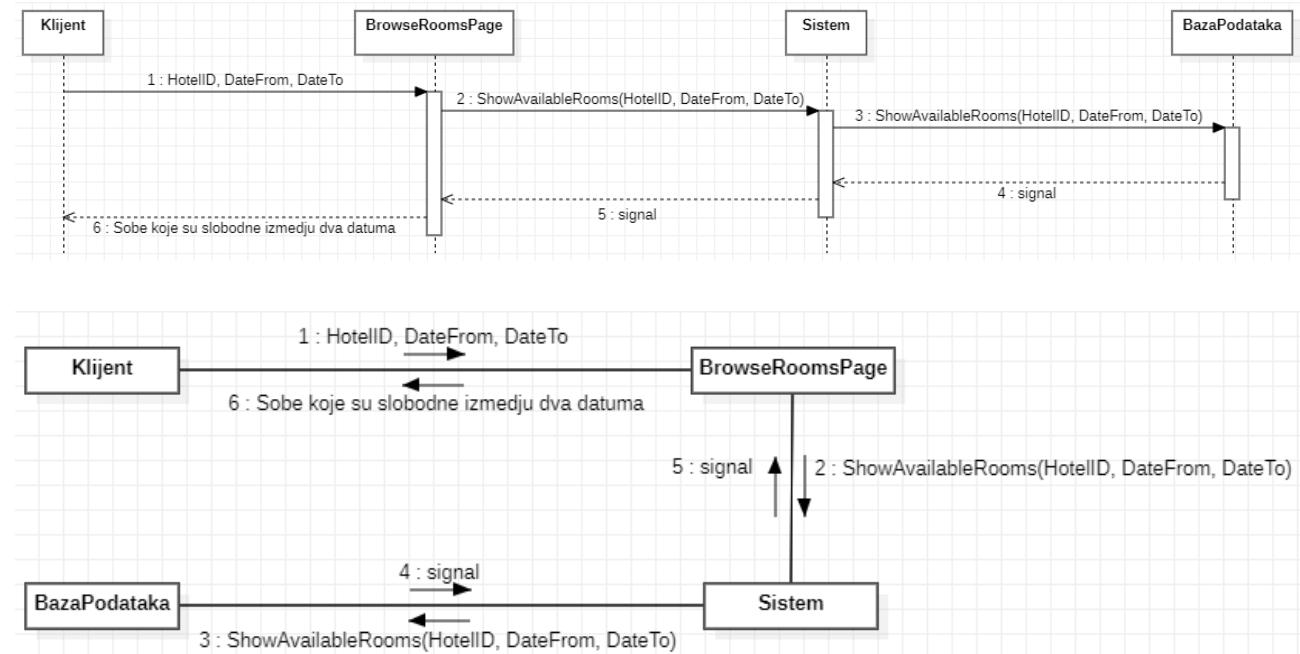
UGOVOR UG6: ShowAvailableRooms

Operacije: ShowAvailableRooms(HotelID, DateFrom, DateTo) : ArrayList<Room>

Veza sa SK: SK5

Preduslovi: U bazi postoje sobe koje nisu rezervisane izmedju dva navedena datuma

Postuslovi: Prikazane su slobodne sobe



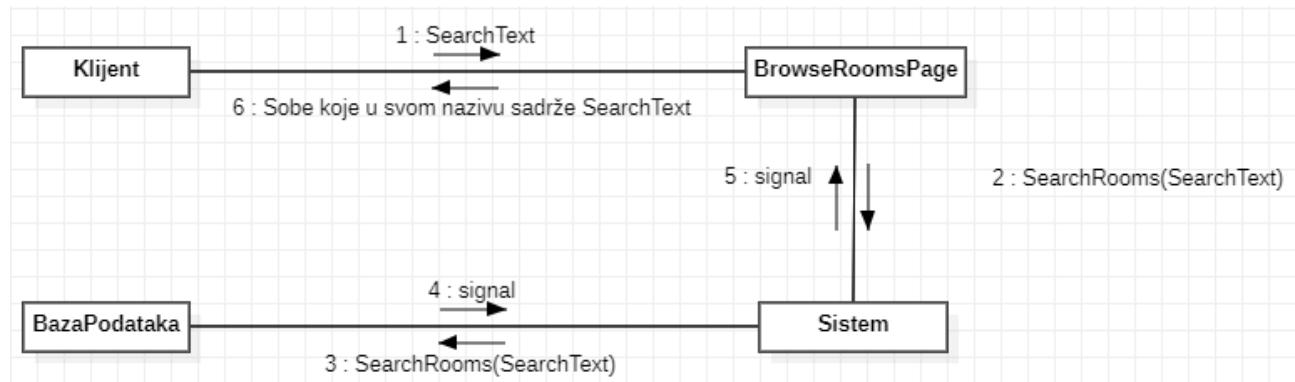
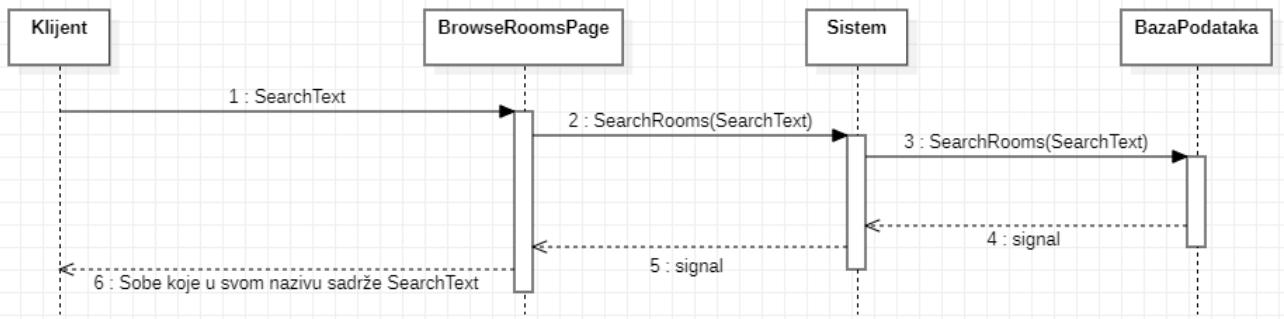
UGOVOR UG7: SearchRooms

Operacija: SearchRooms(SearchText) : ArrayList<Room>

Veza sa SK: SK5, SK10, SK11, SK12

Preduslovi: U bazi postoje sobe

Postuslovi: Prikazane su sobe koje u svom nazivu imaju SearchText



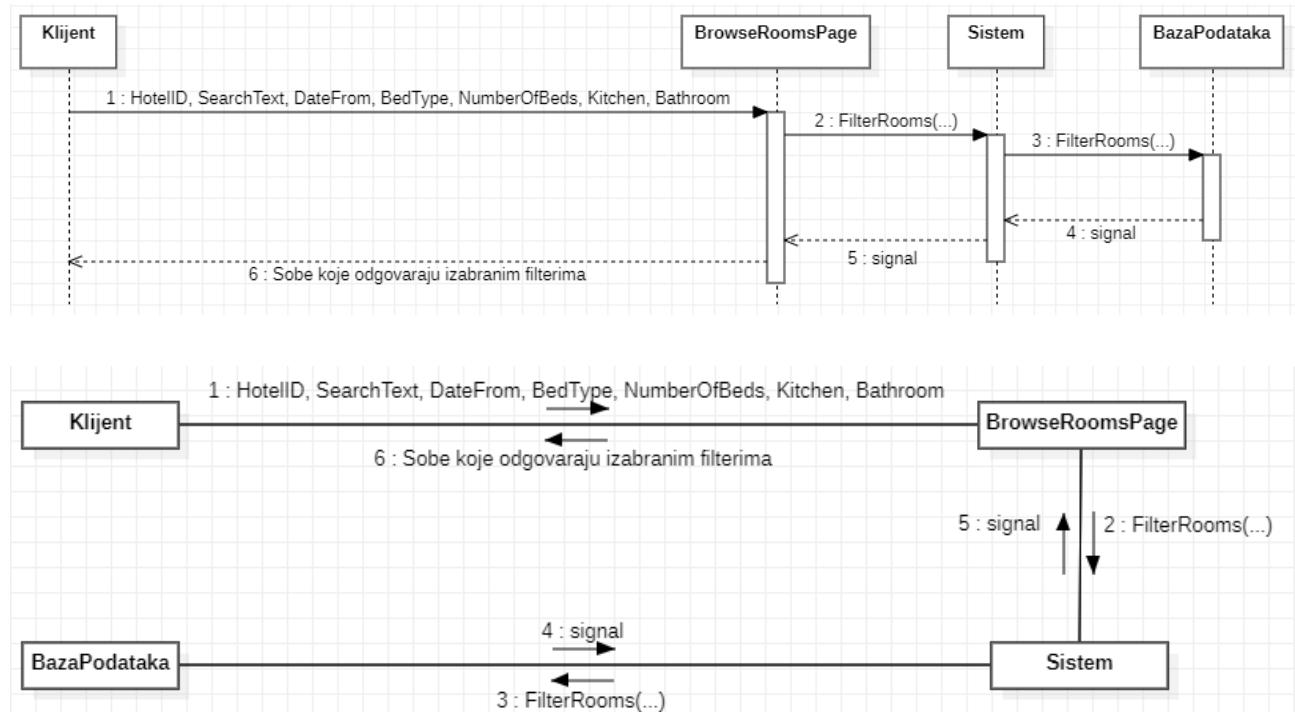
UGOVOR UG8: FilterRooms

Operacija: FilterRooms(HotelID, SearchText, DateFrom, BedType, NumberOfBeds, Kitchen, Bathroom) : ArrayList<Room>

Veza sa SK: SK5

Preduslovi: Sobe postoje u bazi

Postuslovi: Prikazane su sobe koje odgovaraju izabranim filterima



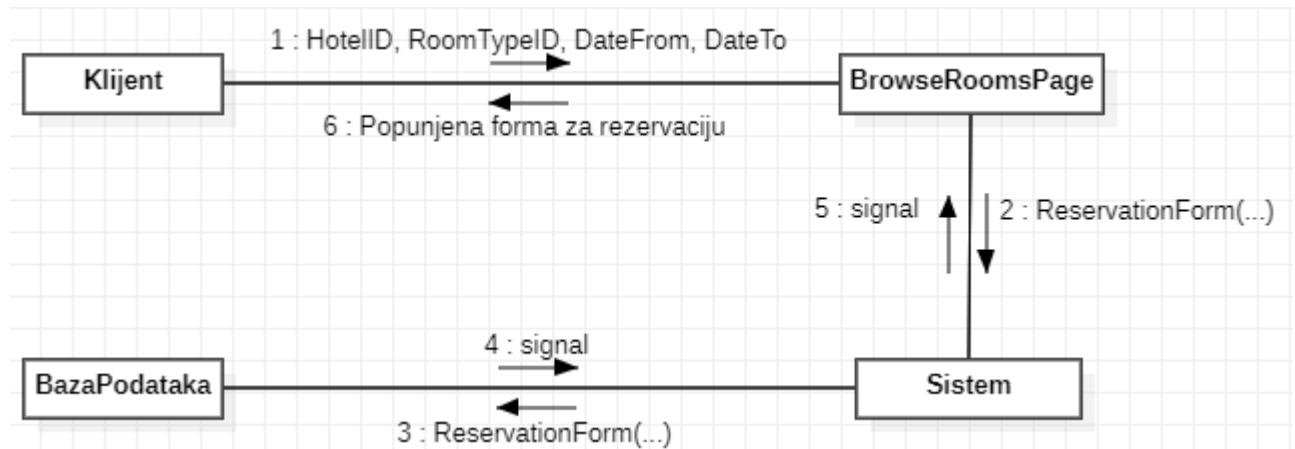
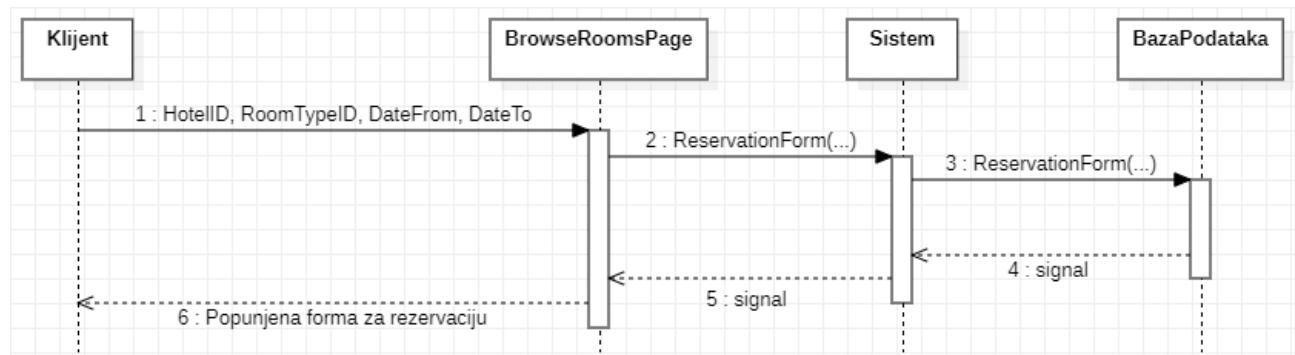
UGOVOR UG9: ReservationForm

Operacija: ReservationForm(HotelID, RoomTypeID, DateFrom, DateTo) : void

Veza sa SK: SK5

Preduslovi: /

Postuslovi: Prikazuje se popunjena forma za rezervaciju



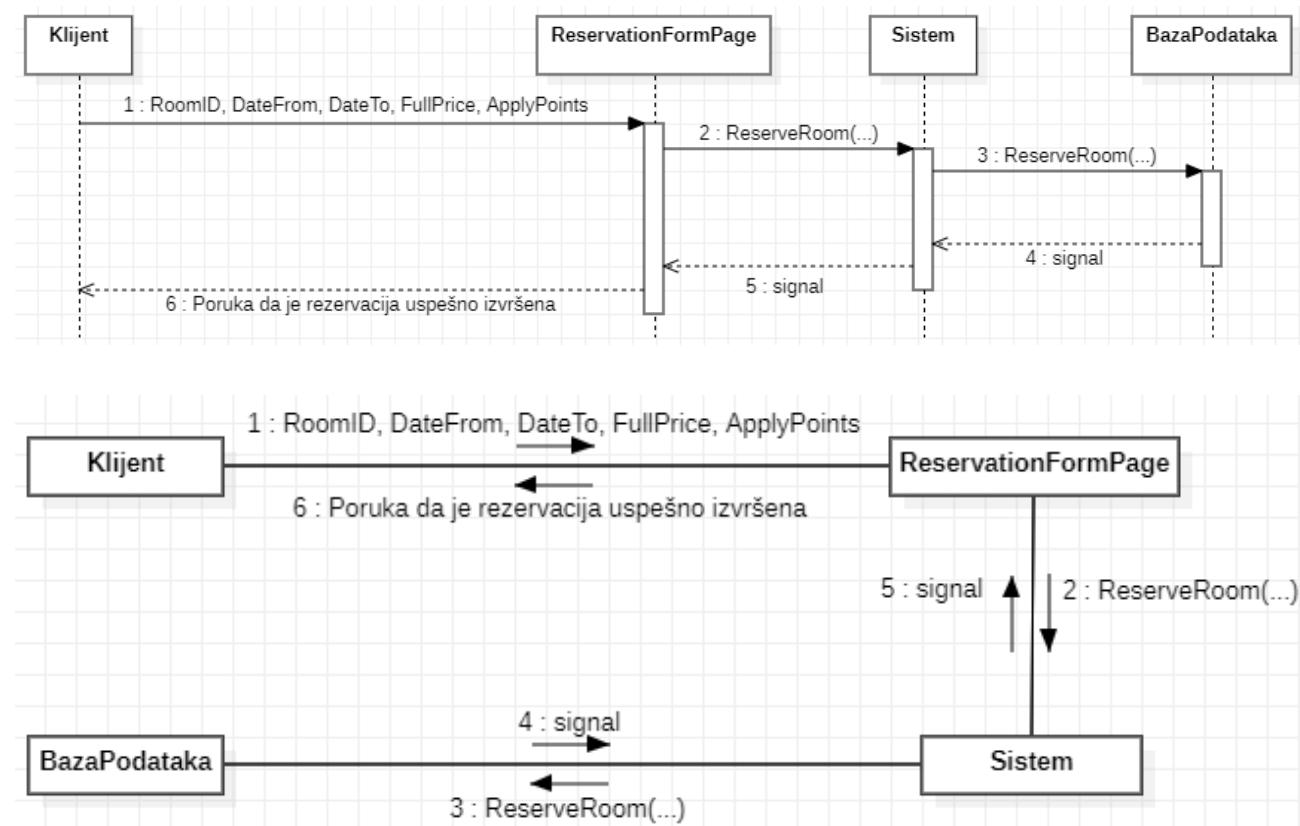
UGOVOR UG10: ReserveRoom

Operacija: ReserveRoom(RoomID, DateFrom, DateTo, FullPrice, ApplyPoints) : void

Veza sa SK: SK6

Preduslovi: /

Postuslovi: Uneta je nova rezervacija u bazu



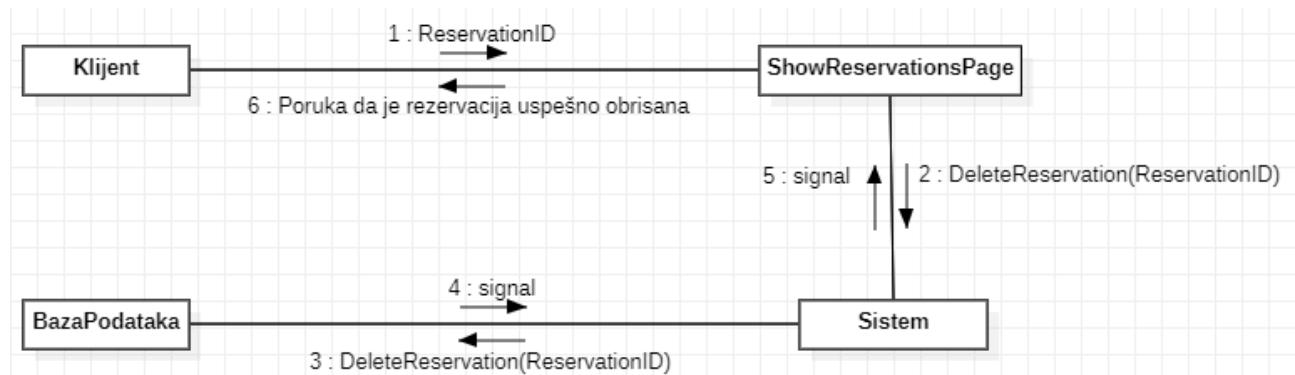
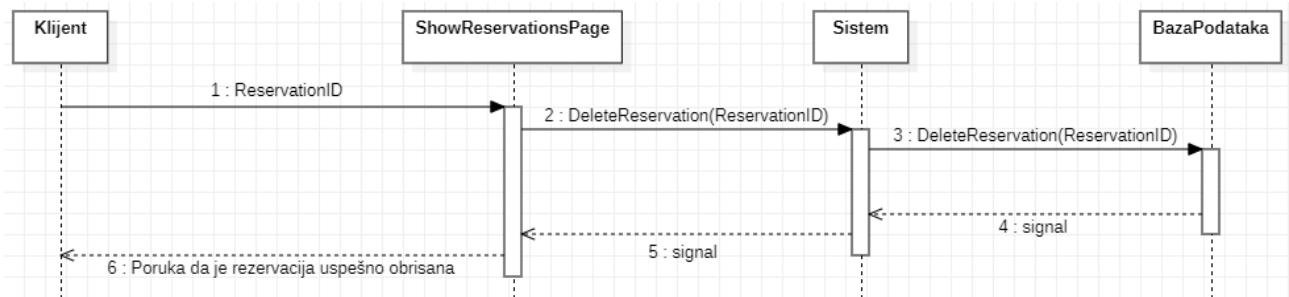
UGOVOR UG11: DeleteReservation

Operacija: DeleteReservation(ReservationID)

Veza sa SK: SK7

Preduslovi: Postoji rezervacija u bazi

Postuslovi: Rezervacija je obrisana iz baze



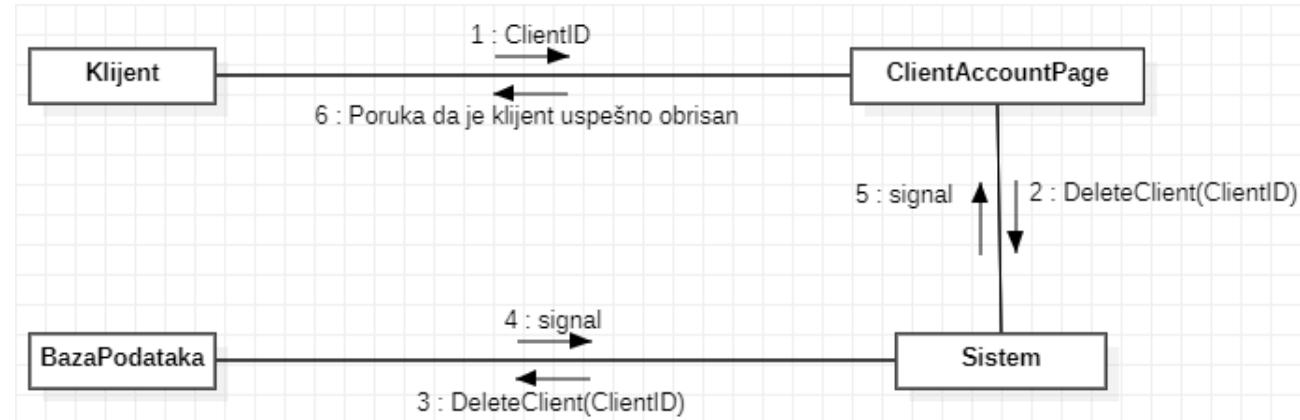
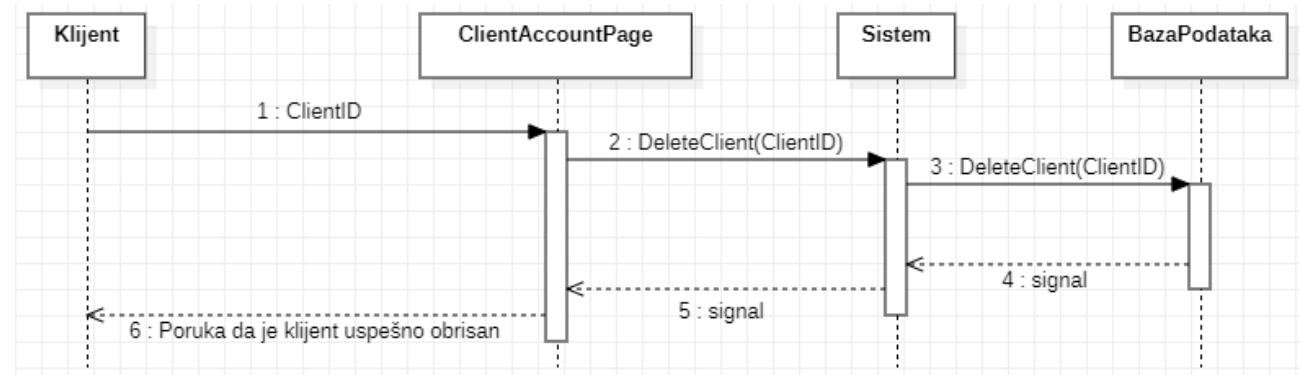
UGOVOR UG12: DeleteClient

Operacija: DeleteClient(ClientID)

Veza sa SK: SK8

Preduslovi: Klijent postoji u bazi

Postuslovi: Klijent je obrisan iz baze



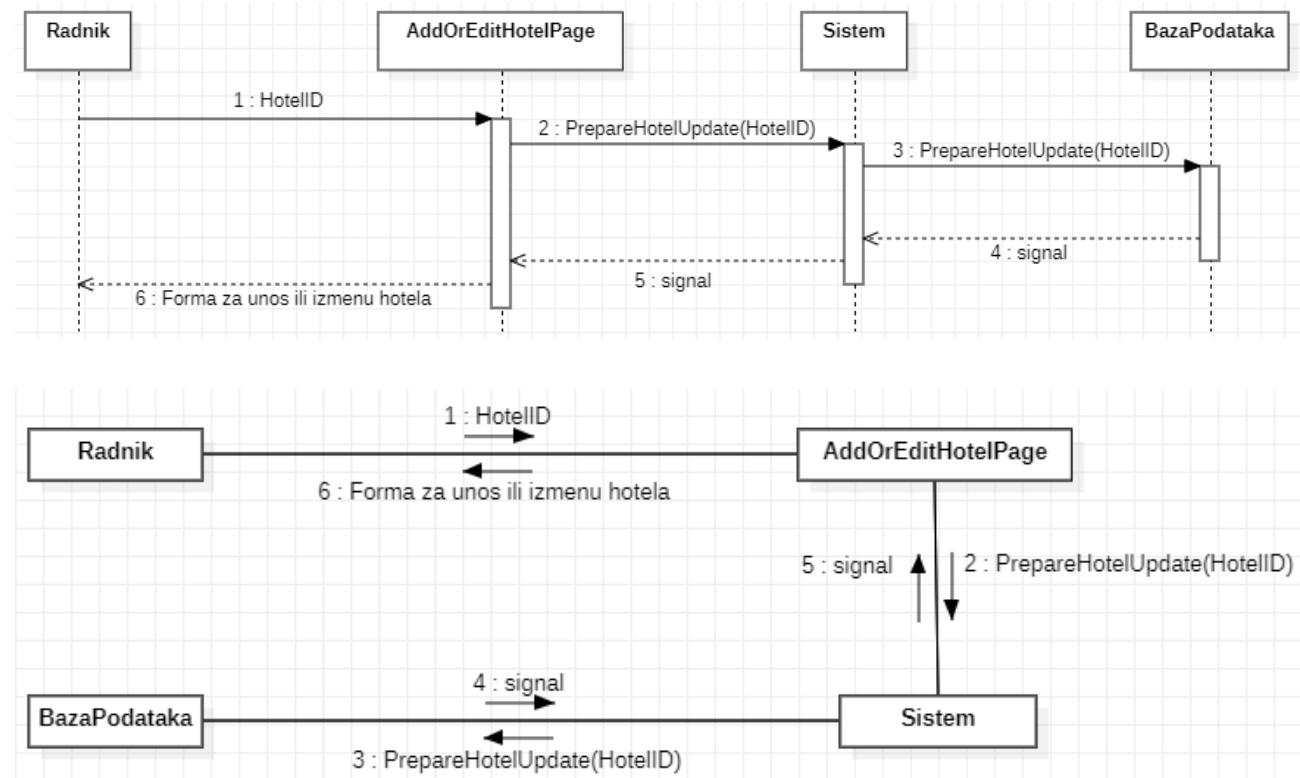
UGOVOR UG13: PrepareHotelUpdate

Operacija: PrepareHotelUpdate(HotelID)

Veza sa SK: SK9

Preduslovi: Hotel postoji u bazi

Postuslovi: Detalji hotela su izmenjeni



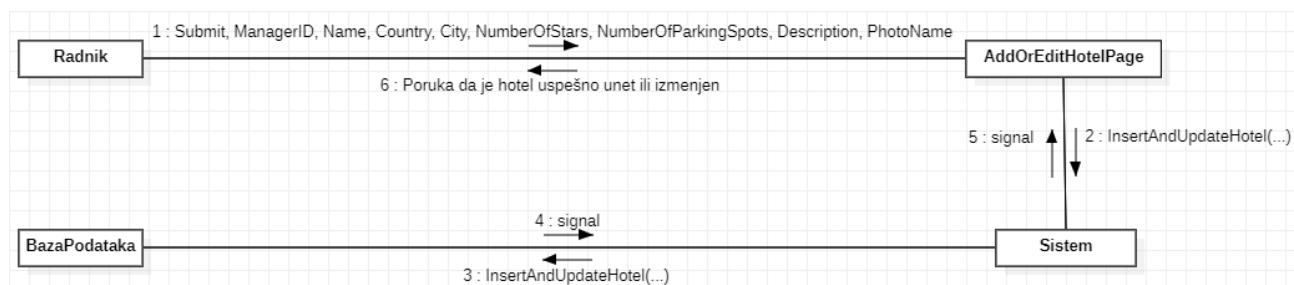
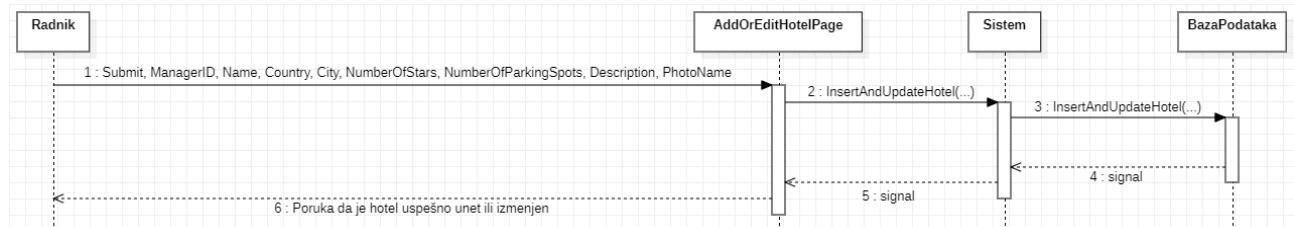
UGOVOR UG14: InsertAndUpdateHotel

Operacija: InsertAndUpdateHotel(Submit, ManagerID, Name, Country, City, NumberOfStars, NumberOfParkingSpots, Description, PhotoName)

Veza sa SK: SK9, SK16

Preduslovi: Izmena hotela: Hotel postoji u bazi; Dodavanje hotela: Hotel ne postoji u bazi

Postuslovi: Izmena hotela: Detalji hotela su promenjeni; Dodavanje hotela: Hotel je dodat u bazu



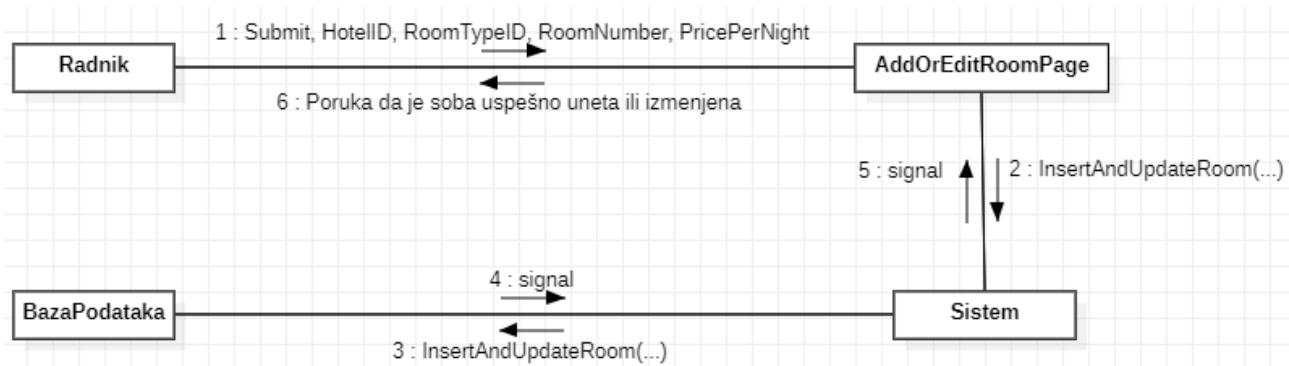
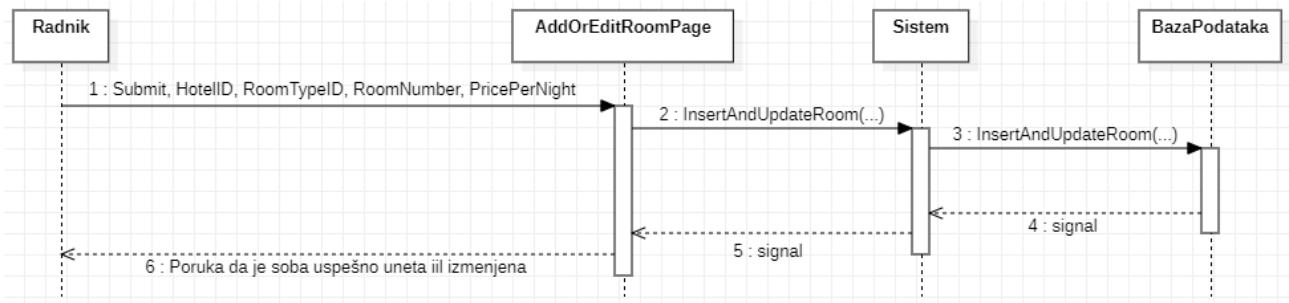
UGOVOR UG15: InsertAndUpdateRoom

Operacija: InsertAndUpdateRoom(Submit, HotelID, RoomTypeID, RoomNumber, PricePerNight)

Veza sa SK: SK10, SK11

Preduslovi: Izmena sobe: Soba postoji u bazi; Dodavanje sobe: Soba ne postoji u hotelu

Postuslovi: Izmena sobe: Detalji sobe su promenjeni; Dodavanje sobe: Soba je dodata u bazu



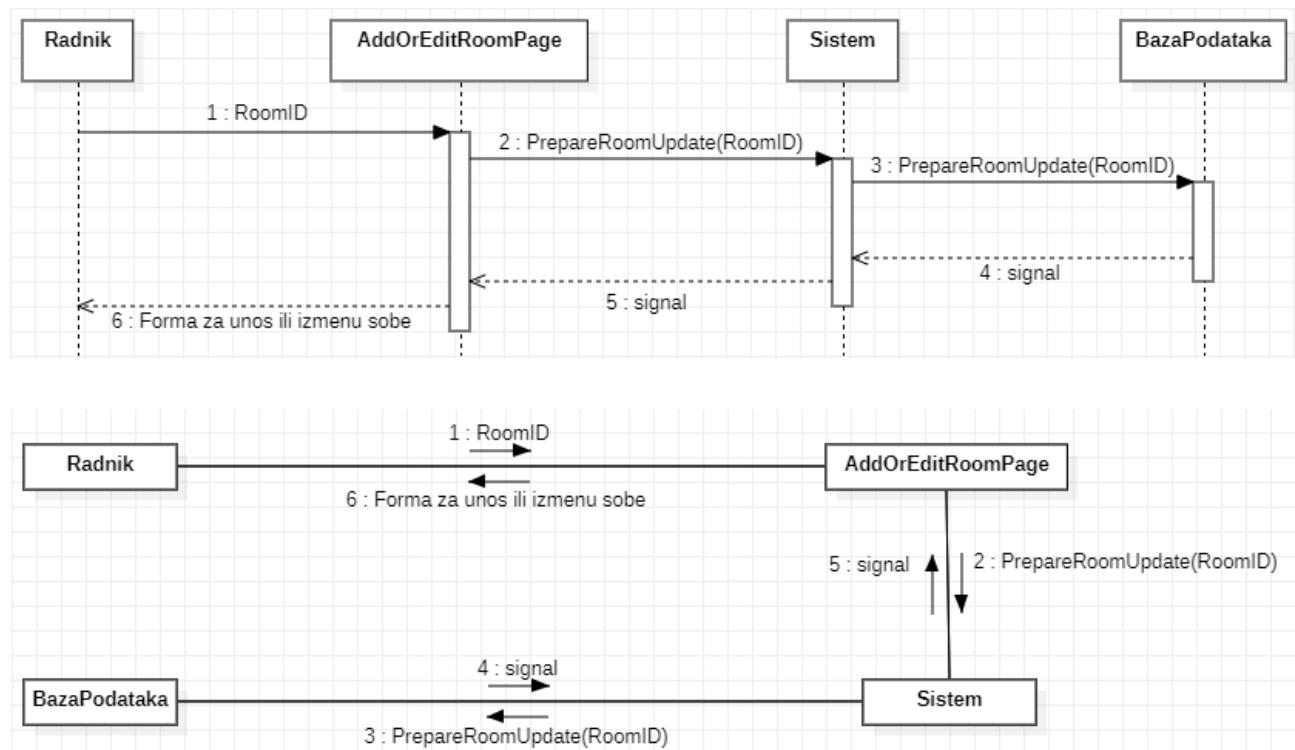
UGOVOR UG16: PrepareRoomUpdate

Operacija: PrepareRoomUpdate(RoomID)

Veza sa SK: SK11

Preduslovi: Soba postoji u bazi

Postuslovi: Detalji sobe su izmenjeni



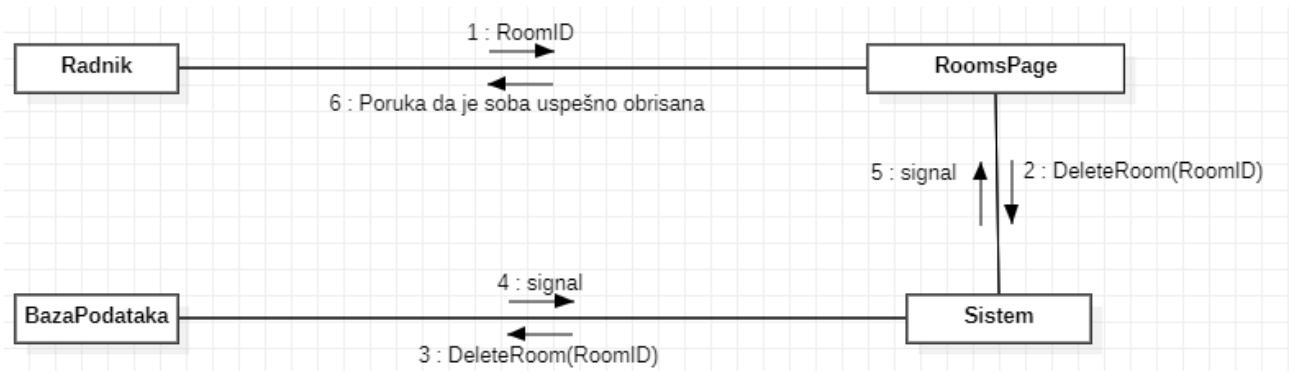
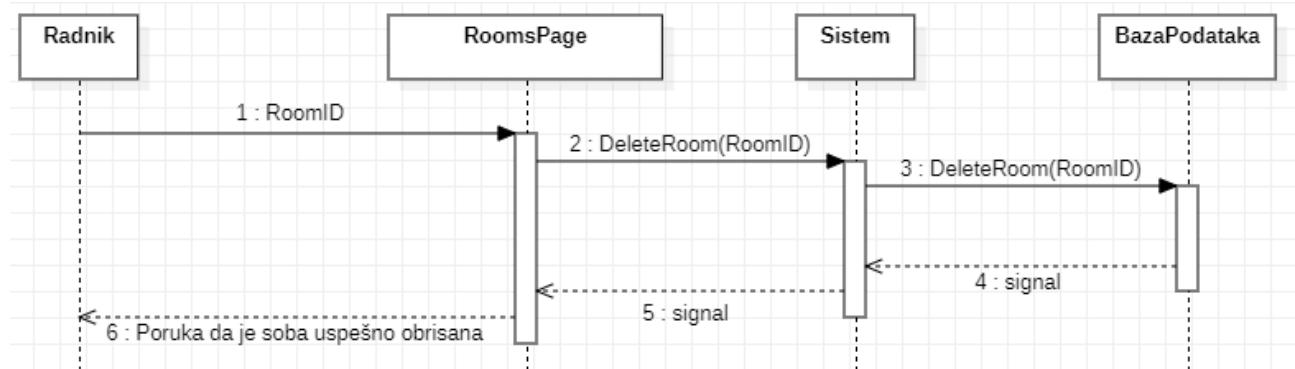
UGOVOR UG17: DeleteRoom

Operacija: DeleteRoom(RoomID)

Veza sa SK: SK12

Preduslovi: Soba postoji u bazi

Postuslovi: Soba je obrisana iz baze



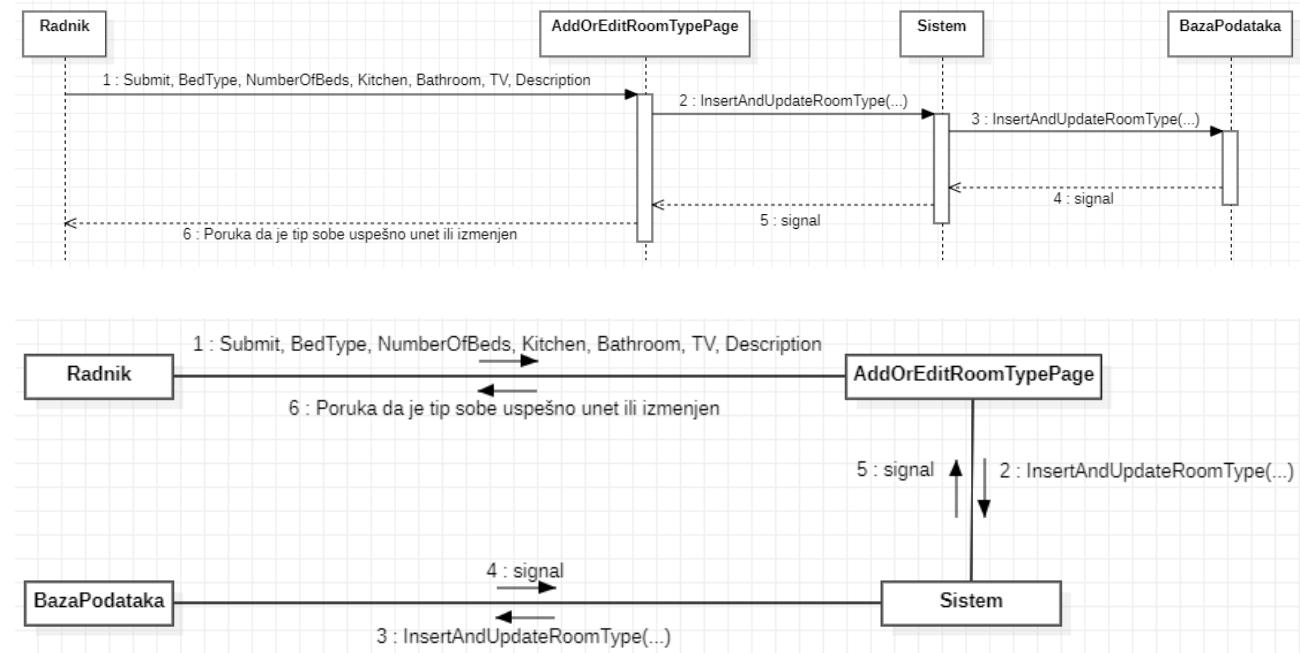
UGOVOR UG18: InsertAndUpdateRoomType

Operacija: InsertAndUpdateRoomType(Submit, BedType, NumberOfBeds, Kitchen, Bathroom, TV, Description)

Veza sa SK: SK13, SK14

Preduslovi: Izmena tipa sobe: Tip sobe postoji u bazi; Dodavanje tipa sobe: Tip sobe ne postoji u bazi

Postuslovi: Izmena tipa sobe: Detalji tipa sobe su promenjeni; Dodavanje tipa sobe: Tip sobe je dodata u bazu



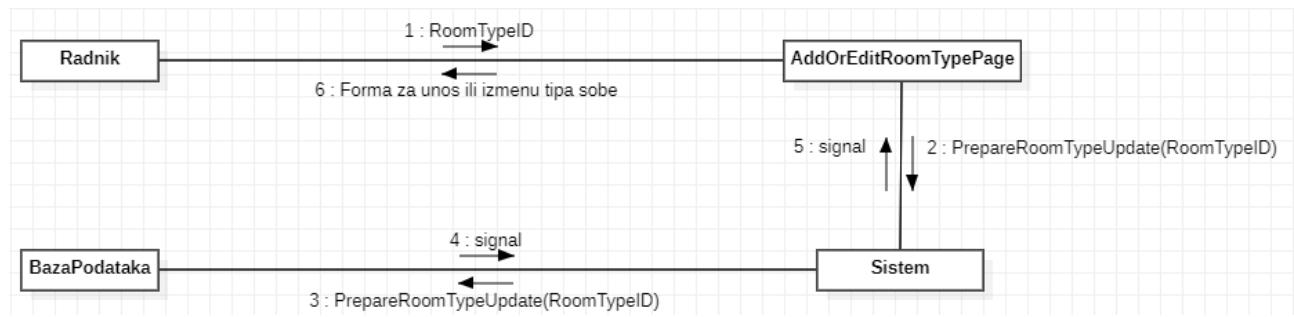
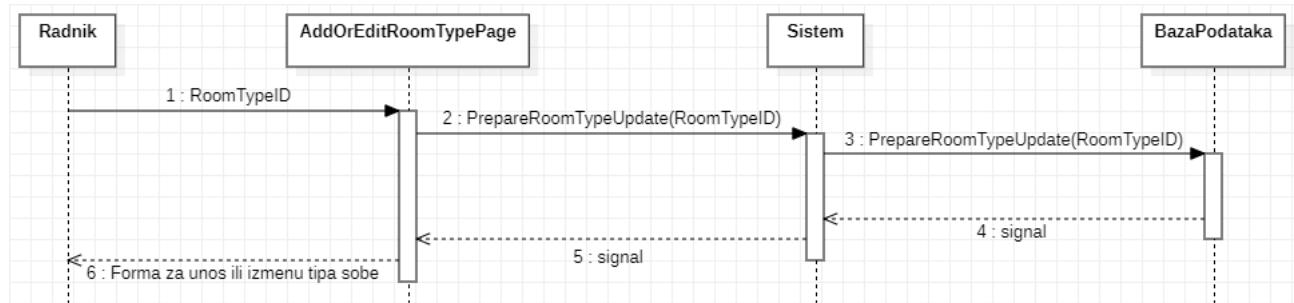
UGOVOR UG19: PrepareRoomTypeUpdate

Operacija: PrepareRoomTypeUpdate(RoomTypeID)

Veza sa SK: SK14

Preduslovi: Tip sobe postoji u bazi

Postuslovi: Detalji tipa sobe su izmenjeni



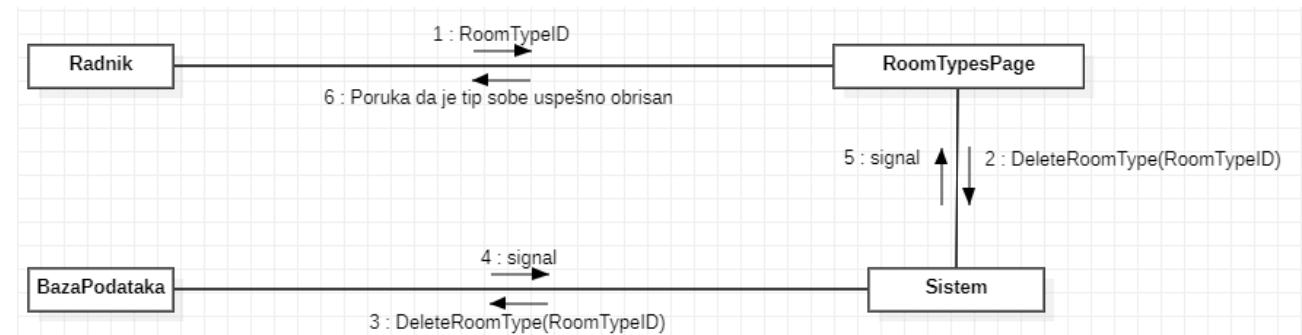
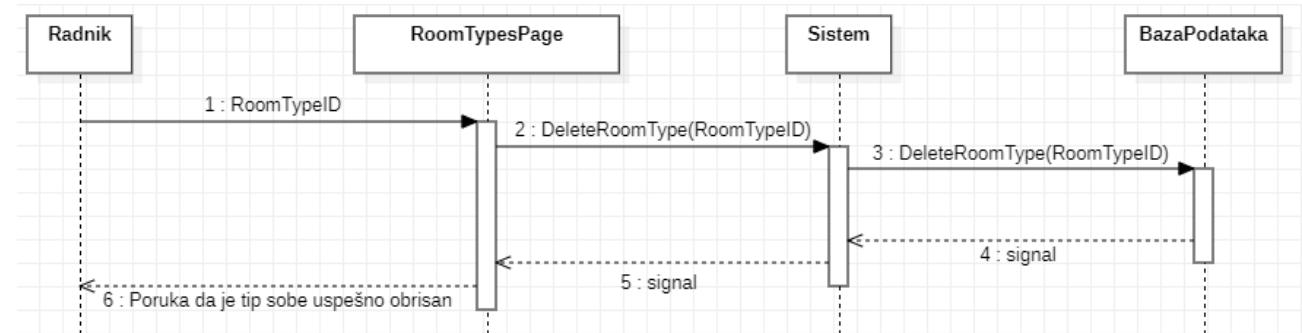
UGOVOR UG20: DeleteRoomType

Operacija: DeleteRoomType(RoomTypeID)

Veza sa SK: SK15

Preduslovi: Tip sobe postoji u bazi

Postuslovi: Tip sobe je izbrisani iz baze



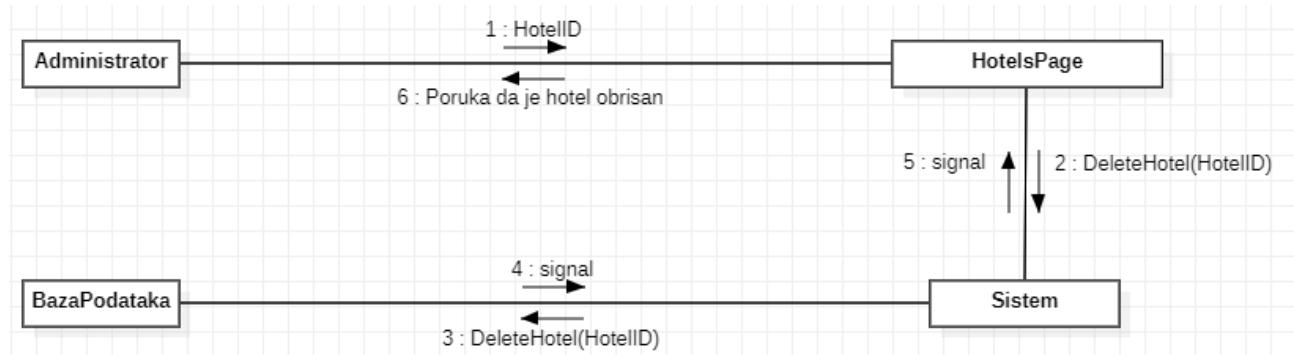
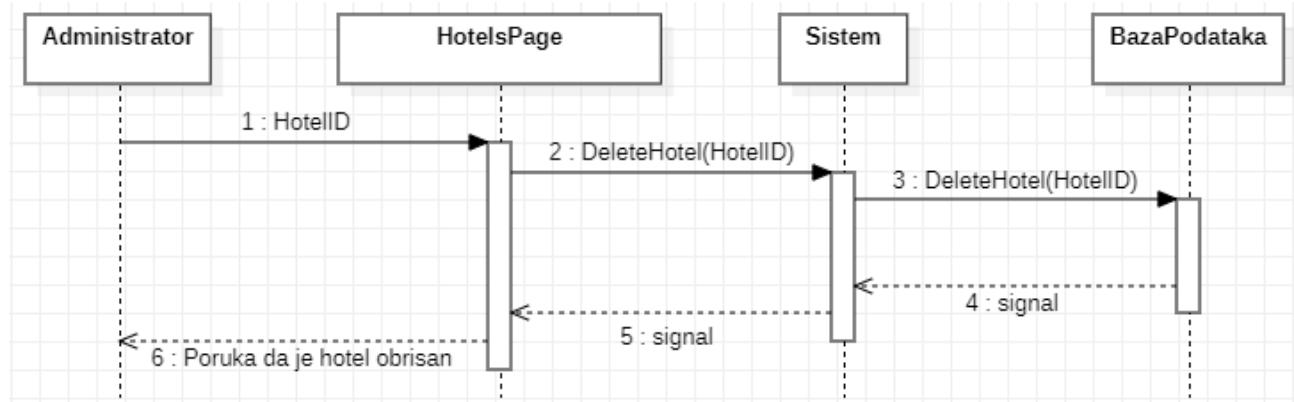
UGOVOR UG21: DeleteHotel

Operacija: DeleteHotel(HotelID)

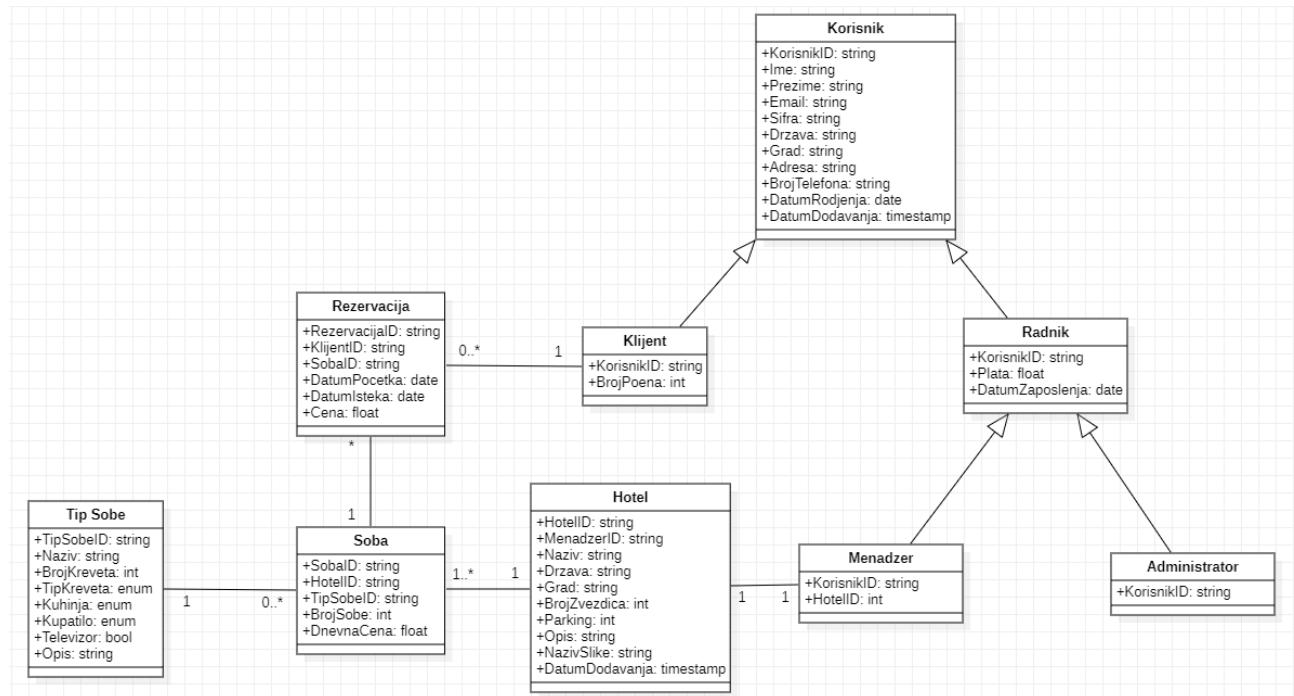
Veza sa SK: SK17

Preduslovi: Hotel postoji u bazi

Postuslovi: Hotel je izbrisani iz baze



5. KONCEPTUALNI MODEL



6. RELACIONI MODEL

Korisnik(KorisnikID, Ime, Prezime, Email, Sifra, Drzava, Grad, Adresa, BrojTelefona, DatumRodjenja, DatumDodavanja)

Klijent(KorisnikID, BrojPoena)

Klijent(KorisnikID) referencira Korisnik(KorisnikID)

Radnik(KorisnikID, Plata, DatumZaposlenja)

Radnik(KorisnikID) referencira Korisnik(KorisnikID)

Administrator(KorisnikID)

Administrator(KorisnikID) referencira Korisnik(KorisnikID)

TipSobe(TipSobeID, Naziv, BrojKreveta, TipKreveta, Kuhinja, Kupatilo, Televizor, Opis)

Hotel(HotelID, MenadzerID, Naziv, Drzava, Grad, BrojZvezdica, Parking, Opis, NazivSlike, DatumDodavanja)

Hotel(MenadzerID) referencira Menadzer(KorisnikID)

Menadzer(KorisnikID, HotelID)

Menadzer(HotelID) referencira Hotel(HotelID)

Soba(SobaID, HotelID, TipSobeID, BrojSobe, DnevnaCena)

Soba(HotelID) referencira Hotel(HotelID)

Soba(TipSobeID) referencira TipSobe(TipSobe)

Rezervacija(RezervacijaID, KlijentID, SobaID, DatumPocetka, DatumIsteka, Cena)

Rezervacija(KlijentID) referencira Klijent(KorisnikID)

Rezervacija(SobaID) referencira Soba(SobaID)

7. PROJEKTOVANJE SKLADIŠTA PODATAKA

TABELA: KORISNIK

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	korisnik_id 	varchar(20)	utf8mb4_general_ci		No	None		
2	ime	varchar(20)	utf8mb4_general_ci		No	None		
3	prezime	varchar(20)	utf8mb4_general_ci		No	None		
4	email 	varchar(50)	utf8mb4_general_ci		No	None		
5	sifra	varchar(100)	utf8mb4_general_ci		No	None		
6	drzava	varchar(50)	utf8mb4_general_ci		No	None		
7	grad	varchar(30)	utf8mb4_general_ci		No	None		
8	adresa	varchar(50)	utf8mb4_general_ci		No	None		
9	broj_telefona	varchar(20)	utf8mb4_general_ci		No	None		
10	datum_rodjenja	date			No	None		
11	datum_dodavanja	timestamp			No	current_timestamp()		

TABELA: Klijent

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	korisnik_id 	varchar(20)	utf8mb4_general_ci		No	None		
2	broj_poena	int(11)			No	None		

TABELA: RADNIK

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	korisnik_id 	varchar(20)	utf8mb4_general_ci		No	None		
2	plata	float			No	None		
3	datum_zaposlenja	date			No	None		

TABELA: MENADZER

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	korisnik_id 	varchar(20)	utf8mb4_general_ci		No	None		
2	hotel_id 	varchar(20)	utf8mb4_general_ci		Yes	NULL		

TABELA: ADMINISTRATOR

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	korisnik_id 	varchar(20)	utf8mb4_general_ci		No	None		

TABELA: HOTEL

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	hotel_id	varchar(20)	utf8mb4_general_ci		No	None		
2	menadzher_id	varchar(20)	utf8mb4_general_ci		Yes	NULL		
3	naziv	varchar(40)	utf8mb4_general_ci		No	None		
4	drzava	varchar(30)	utf8mb4_general_ci		No	None		
5	grad	varchar(30)	utf8mb4_general_ci		No	None		
6	broj_zvezdica	int(11)			No	None		
7	broj_parking_mesta	int(11)			No	None		
8	opis	varchar(500)	utf8mb4_general_ci		No	None		
9	naziv_slike	varchar(50)	utf8mb4_general_ci		Yes	NULL		
10	datum_dodavanja	timestamp			No	current_timestamp()		

TABELA: SOBA

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	soba_id	varchar(20)	utf8mb4_general_ci		No	None		
2	hotel_id	varchar(20)	utf8mb4_general_ci		No	None		
3	tip_sobe_id	varchar(20)	utf8mb4_general_ci		Yes	NULL		
4	broj_sobe	int(3)			No	None		
5	dnevna_cena	float			No	None		

TABELA: TIP SOBE

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	tip_sobe_id	varchar(50)	utf8mb4_general_ci		No	None		
2	naziv	varchar(100)	utf8mb4_general_ci		No	None		
3	broj_kreveta	int(11)			No	None		
4	tip_kreveta	enum('Single', 'Double', 'Queen', 'King', 'Single')	utf8mb4_general_ci		No	None		
5	kuhinja	enum('None', 'Semi-furnished', 'Fully-furnished')	utf8mb4_general_ci		No	None		
6	kupatilo	enum('Shower', 'Bath')	utf8mb4_general_ci		No	None		
7	televizor	bit(1)			No	None		
8	opis	varchar(500)	utf8mb4_general_ci		No	None		

TABELA: REZERVACIJA

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	rezervacija_id	varchar(50)	utf8mb4_general_ci		No	None		
2	klijent_id	varchar(20)	utf8mb4_general_ci		Yes	NULL		
3	soba_id	varchar(20)	utf8mb4_general_ci		Yes	NULL		
4	datum_pocetka	date			No	None		
5	datum_isteka	date			No	None		
6	cena	float			No	None		