

# Dokumentation

WebShop

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## User Requirements

Develop an application for selling electronic goods. Electronic goods are categorized into categories. Categories can have subcategories. There is no limit to the number of subcategories. Each category has a unique name. Each category has a list of specific features that each item belonging to that category can have. Features are also used as search parameters for the goods. Goods can belong to only one category and have their own name, short description, detailed description, one or more photos, as well as values for one or more features of the category to which the goods belong. Goods cannot have multiple values for the same feature. Price changes are recorded for each product, and the latest price of the product is displayed on the web application.

The web application allows the highlighting of certain products on the home page in two ways. The first way displays goods marked as promoted, and the second way shows the latest added goods in the store's offer. Only administrators, who log in to the portal with access credentials, can manage categories, features, goods, photos, and have insight into orders. Logged-in users can browse goods by category, perform searches of all goods, and search goods by features within the selected category using filtering options.

To place an order, visitors must be logged into the application. Visitors can register a user account and log in with their existing access credentials. During registration, the visitor must provide personal information, contact details, address, and desired access credentials. It is not possible to register multiple accounts with the same email address. When a visitor logs into the application with their access credentials, they can add items to the cart, view the list of their previous orders, and select the quantity when adding goods to the cart.

If the same item already exists in the cart, it is not added again; instead, the quantity of the already added item is increased by the new quantity. At any time, the logged-in user can view the cart contents, remove items from it, or change the quantity of selected goods in the cart. If desired, they can place an order for the goods from the cart. Administrators, who can see the list of received orders, can view order details and mark the order status. Possible statuses are sent, rejected, accepted, or finalized. The statuses can also be viewed by the logged-in user in their order display.

**Backend:** Node.js (Nest.js application)

**Database:** MySQL

**Backend testing tool:** Postman

**Frontend:** React.js

## ROLE OF THE ADMINISTRATOR

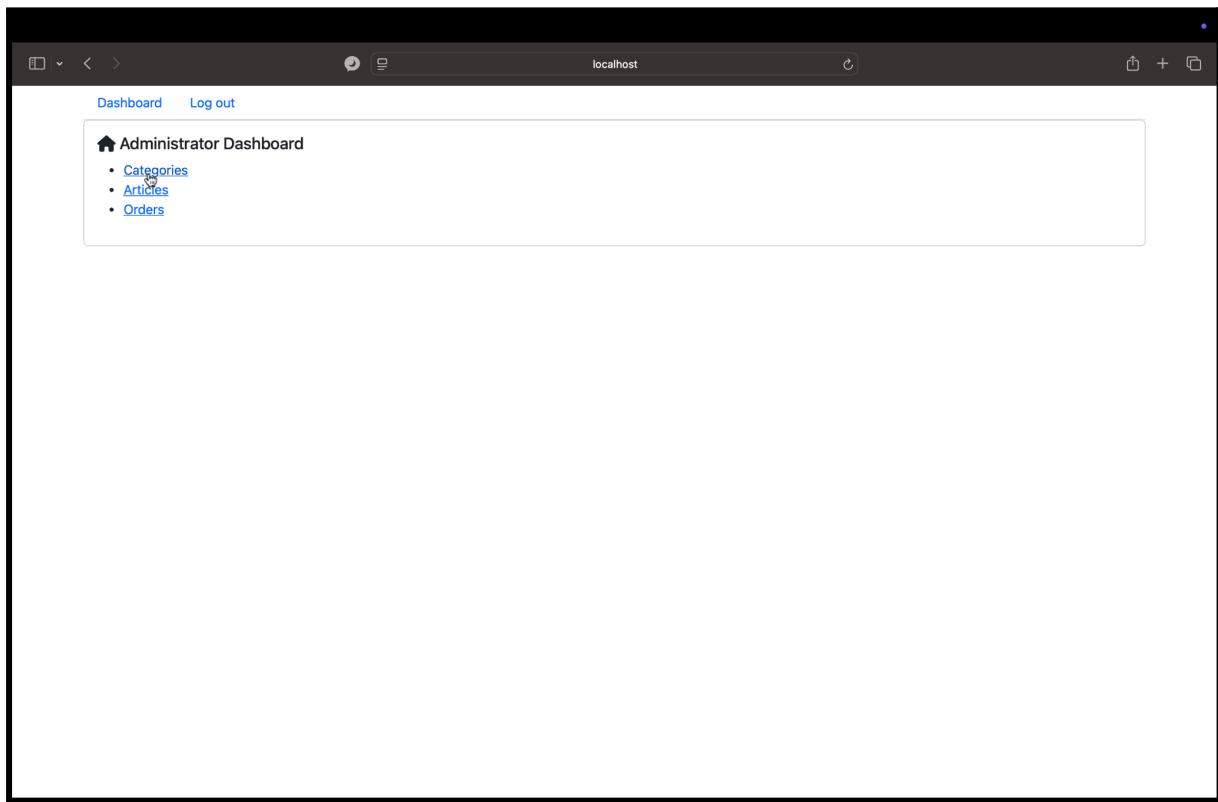
### 1. Administrator Login

A screenshot of a web browser window showing an "Administrator Login" form. The URL bar at the top shows "localhost". The form has a title "Administrator Login" with a key icon. It contains two input fields: "Username" with the value "test" and "Password" with several dots indicating the password. Below the fields is a blue "Log in" button with a mouse cursor hovering over it.

### 2. Homepage for the Administrator Role

A screenshot of a web browser window showing an "Administrator Dashboard". The URL bar at the top shows "localhost". The dashboard features a navigation bar with "Dashboard" and "Log out" buttons. The main content area is titled "Administrator Dashboard" with a house icon. It contains a list of three items: "Categories", "Articles", and "Orders".

3. By clicking on "Categories," the administrator is redirected to the list of all categories.

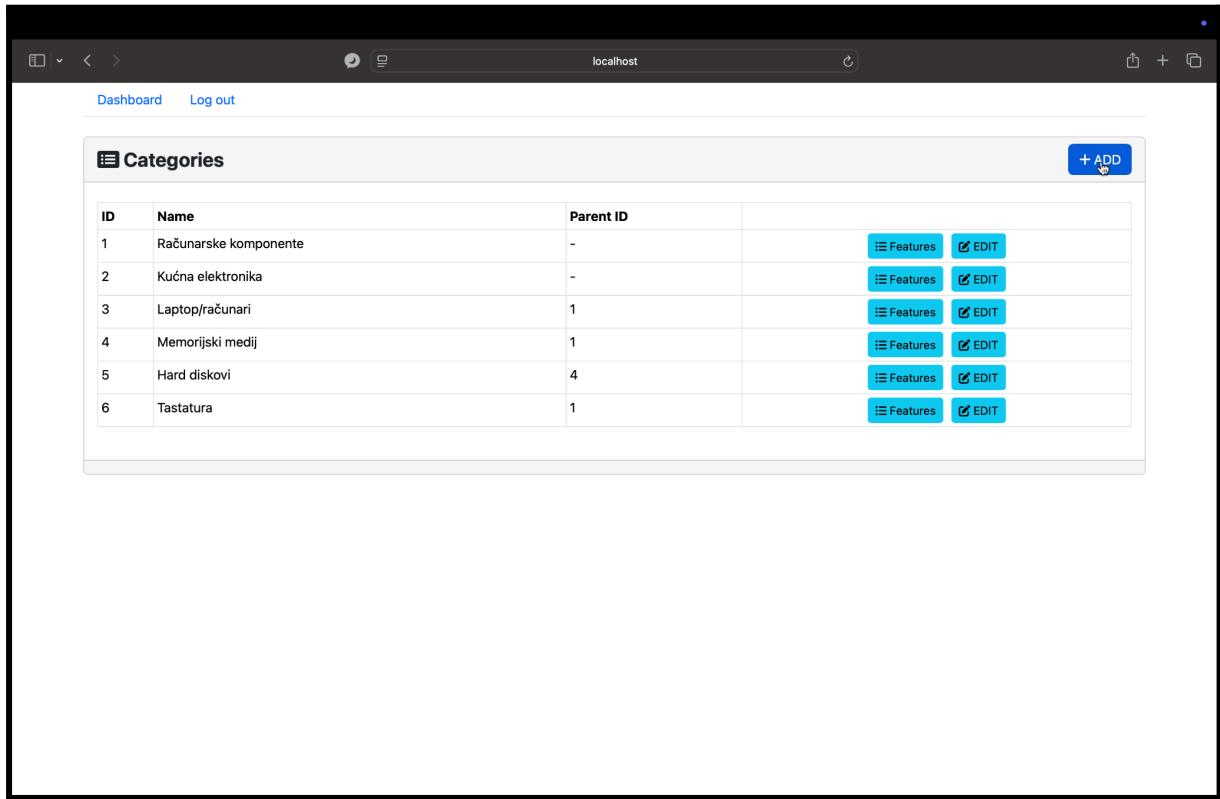


4. The administrator has the option to select "ADD" to add a new category, "EDIT" to edit an existing category, or to view "FEATURES" belonging to the desired category.

A screenshot of a web browser window titled "localhost". The address bar shows "localhost". The page content is the "Categories" list. At the top left is a list icon labeled "Categories". At the top right is a blue button labeled "+ ADD". The main area is a table with columns: "ID", "Name", and "Parent ID". There are six rows of data:

ID	Name	Parent ID		
1	Računarske komponente	-		
2	Kućna elektronika	-		
3	Laptop/računari	1		
4	Memorijski medij	1		
5	Hard diskovi	4		
6	Tastatura	1		

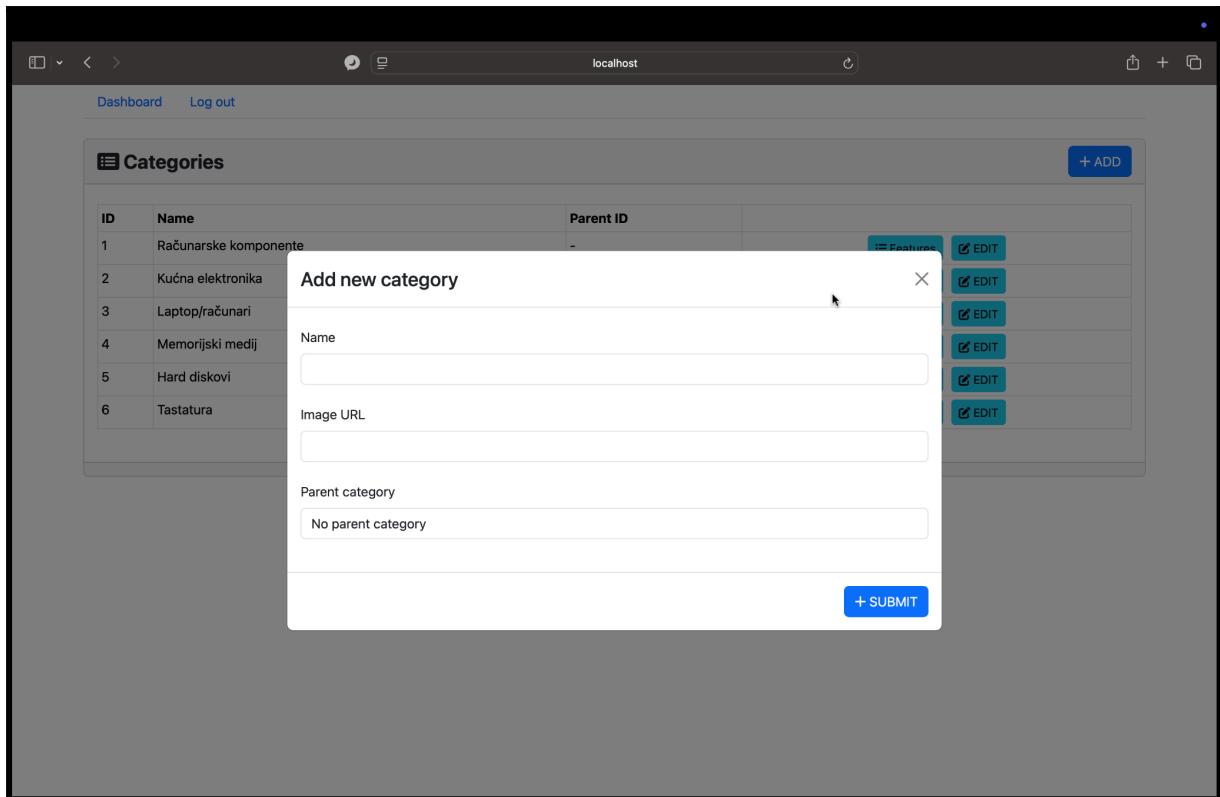
5. By clicking on the "ADD" option, the administrator is presented with a form that must be filled out to add a new category, which contains all the elements that constitute a category.



A screenshot of a web application interface titled "Categories". The page shows a table with columns for "ID", "Name", and "Parent ID". Each row has a "Features" and an "EDIT" button. A blue "+ ADD" button is located in the top right corner of the table header. The table contains the following data:

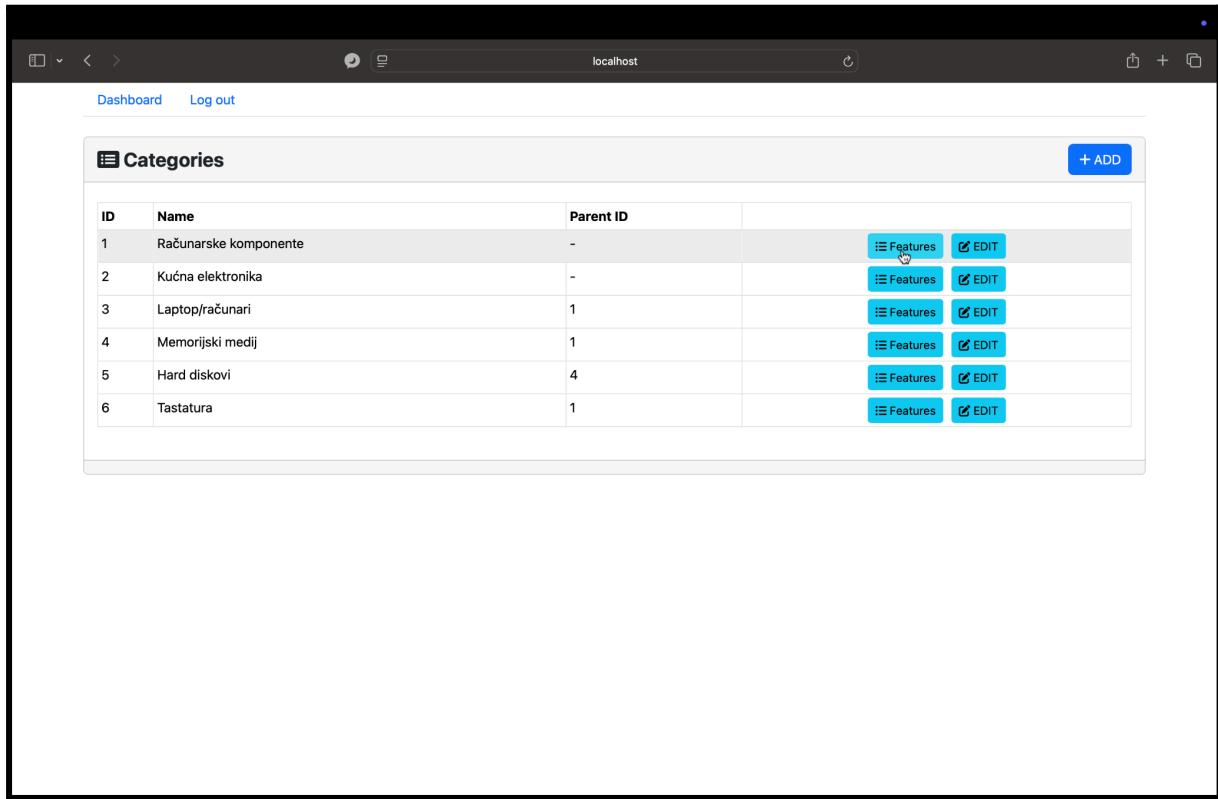
ID	Name	Parent ID	Features	EDIT
1	Računarske komponente	-		
2	Kućna elektronika	-		
3	Laptop/računari	1		
4	Memorijski medij	1		
5	Hard diskovi	4		
6	Tastatura	1		

6. After filling out the form, clicking on "SUBMIT" saves the new category.



A screenshot of a web application interface titled "Categories". A modal dialog box is open, titled "Add new category". It contains fields for "Name" (with a placeholder "Category name"), "Image URL" (with a placeholder "Image URL"), and "Parent category" (with a placeholder "No parent category"). A blue "+ SUBMIT" button is at the bottom right of the dialog. The background shows the same categories list as the previous screenshot.

7. By clicking on "FEATURES," the user is redirected to view all the features characteristic of the given category.

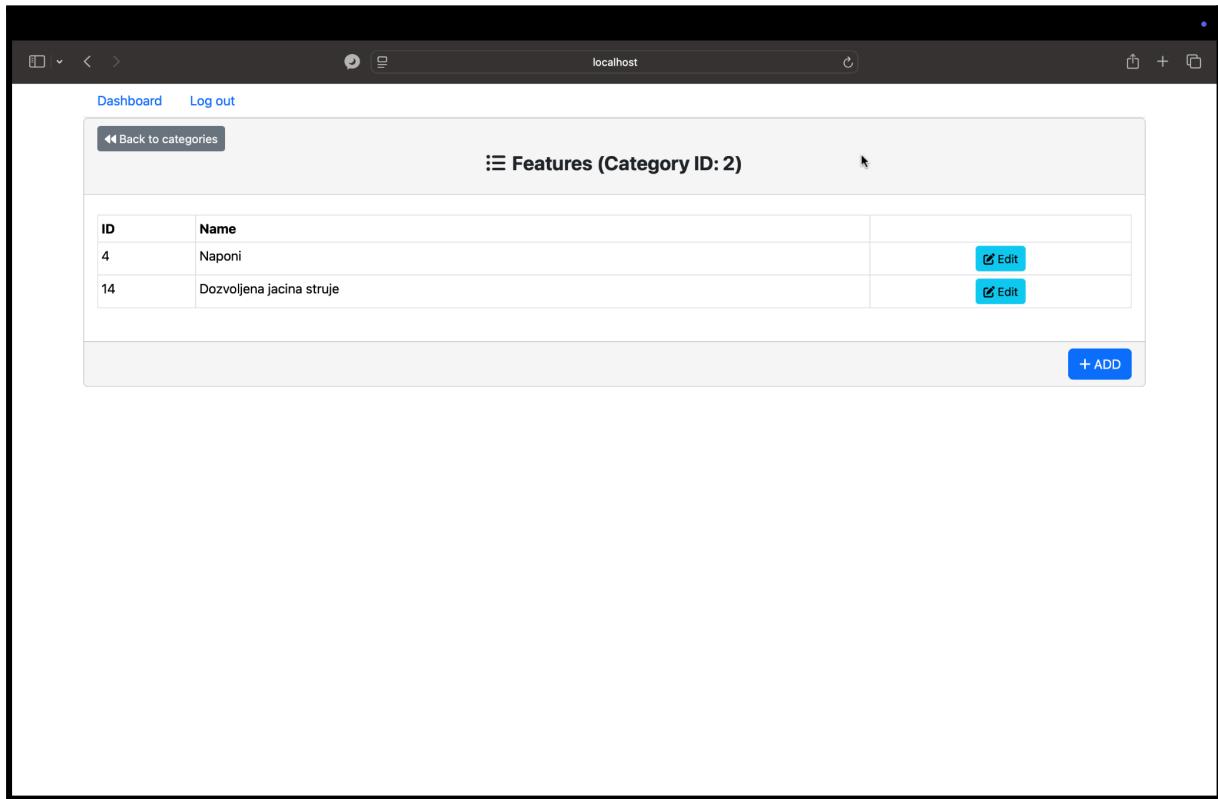


The screenshot shows a web application interface titled "Categories". At the top right is a blue button labeled "+ ADD". Below it is a table with columns "ID", "Name", and "Parent ID". The data rows are:

ID	Name	Parent ID
1	Računarske komponente	-
2	Kućna elektronika	-
3	Laptop/računari	1
4	Memorijski medij	1
5	Hard diskovi	4
6	Tastatura	1

Each row has two buttons on the right: a blue "Features" button with a list icon and a blue "EDIT" button with a pencil icon.

8. For each feature of a category, it is possible to click on "ADD" to add a new feature or to click "EDIT" to edit the name of the selected feature.



The screenshot shows a web application interface titled "Features (Category ID: 2)". At the top right is a blue button labeled "+ ADD". Below it is a table with columns "ID" and "Name". The data rows are:

ID	Name
4	Naponi
14	Dozvoljena jacina struje

Each row has a blue "Edit" button with a pencil icon on the right.

## 9. Editing the feature for a specific category.

ID	Name	
4	Naponi	<a href="#">Edit</a>
14	Dozvoljena jacina struje	<a href="#">Edit</a>

## 10. Feature Editing Form

Edit feature

Name

Napajanje

[Edit feature](#)

Clicking on "Edit feature" saves the changes.

11. Klikom na opciju "EDIT" pojavljuje se forma za uređivanje kategorije.

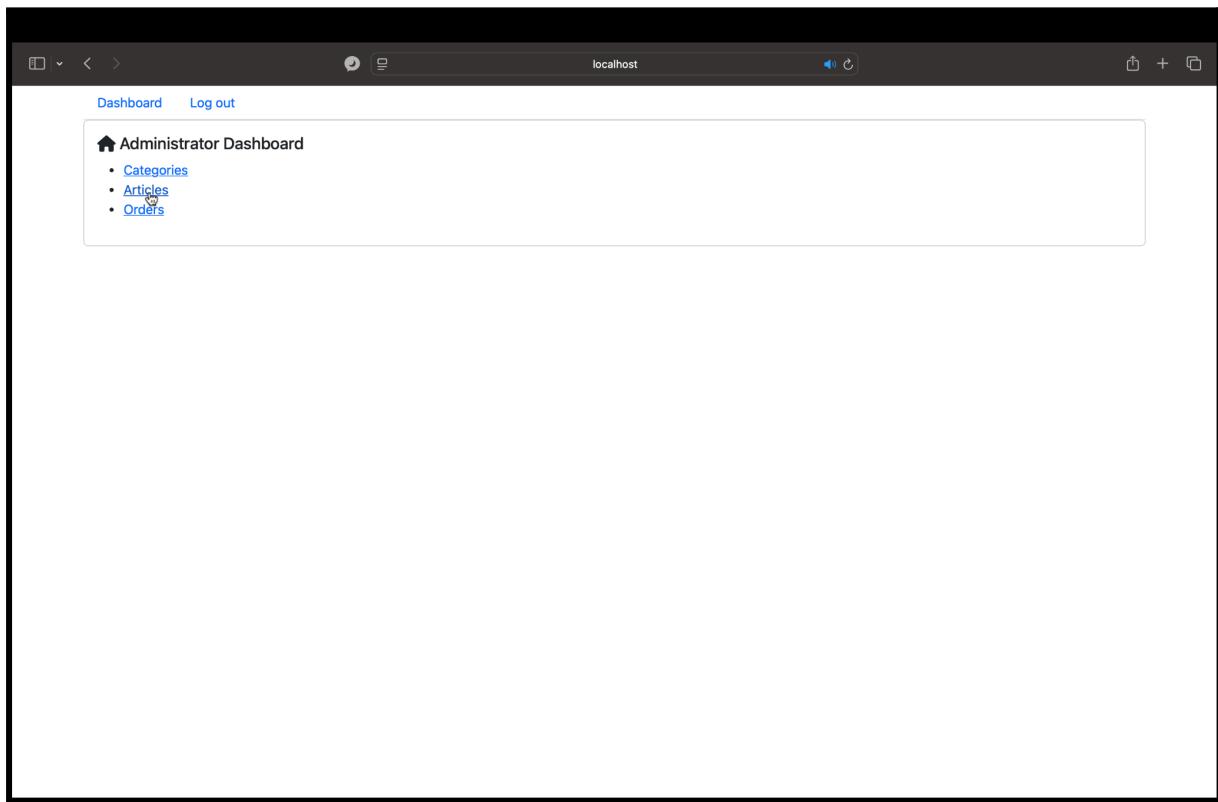
The screenshot shows a web browser window with a dark theme. The address bar says "localhost". The main content area has a header "Categories". Below it is a table with columns "ID", "Name", and "Parent ID". The rows represent categories: 1. Računarske komponente (Parent ID -), 2. Kućna elektronika (Parent ID -), 3. Laptop/računari (Parent ID 1), 4. Memorijski medij (Parent ID 1), 5. Hard diskovi (Parent ID 4), and 6. Tastatura (Parent ID 1). To the right of each row are two buttons: "Features" and "EDIT". The "EDIT" button for category 1 is currently being clicked, as indicated by the mouse cursor. A blue "+" ADD button is located in the top right corner of the table area.

12. Category Editing Form

This screenshot shows the same web application after the "Edit" button for category 1 was clicked. A modal dialog box titled "Edit category" is now displayed in the center of the screen. It contains three input fields: "Name" (with the value "Računarske komponente"), "Image URL" (with the value "assets/pc.jpg"), and "Parent category" (with the value "No parent category"). At the bottom of the dialog is a blue "SUBMIT" button, which is currently being clicked, as shown by the cursor. The background of the page is dimmed to indicate it is not active.

Clicking on the "SUBMIT" button saves your changes.

13. By clicking on "Articles," you are redirected to the list of all articles.



14. Actions available for articles include adding a new article, editing an article, and adding or deleting article photos.

A screenshot of a web browser window titled 'localhost'. The address bar shows 'localhost'. The page content is the 'Articles' list. At the top left are links for 'Dashboard' and 'Log out'. At the top right is a blue button labeled '+ NEW ARTICLE'. Below that is a table with the following data:

ID	Name	Category	Status	Promoted	Price	Options
1	ACME HD11	Hard diskovi	available	YES	57.11 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
4	Apple Macbook Air M1	Laptop/računari	available	YES	1800.00 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
5	ACME HD12	Hard diskovi	available	YES	59.15 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
6	ACME HDDY	Hard diskovi	available	-	54.56 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
7	ACME HDDX	Hard diskovi	available	YES	54.56 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
8	ACME HD13	Hard diskovi	available	-	54.56 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
9	Apple Macbook Air M2	Laptop/računari	available	-	1900.00 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>
10	AppleMacbook Pro M1	Laptop/računari	hidden	YES	100.00 BAM	<input checked="" type="checkbox"/> EDIT <input type="button" value="PHOTOS"/>

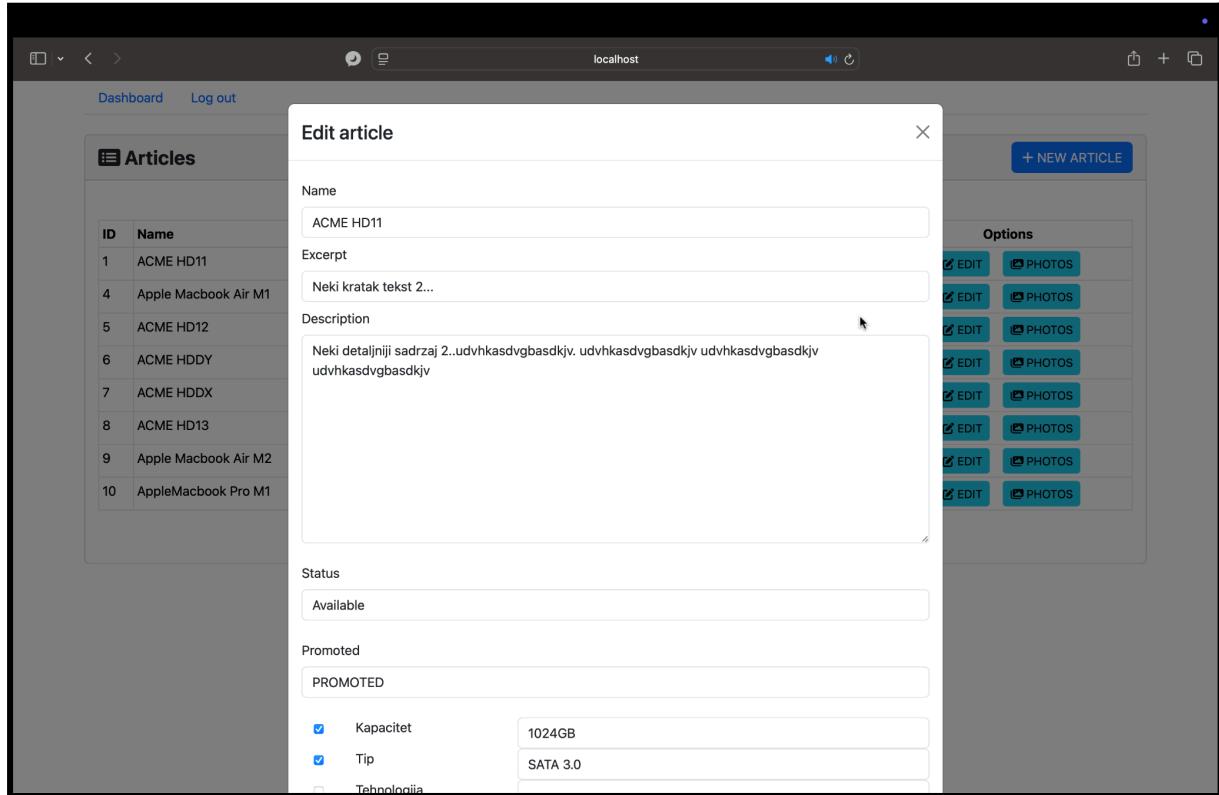
15. By clicking on "NEW ARTICLE," a form is displayed.

The screenshot shows a web browser window with a dark-themed dashboard. On the left, there's a sidebar titled 'Articles' with a table listing 10 articles. The table has columns for 'ID' and 'Name'. The first few rows include 'ACME HD11', 'Apple Macbook Air M1', 'ACME HD12', 'ACME HDDY', 'ACME HDDX', 'ACME HD13', 'Apple Macbook Air M2', and 'AppleMacbook Pro M1'. To the right of the sidebar is a modal window titled 'Add new article'. Inside the modal, there are input fields for 'Name' (empty), 'Category ID' (set to 'Računarske komponente'), 'Excerpt' (empty), 'Description' (empty), 'Article photo' (button labeled 'Odaberi datoteku' and 'datoteka nije odabrana'), and 'Price' (set to '0,01'). On the far right of the modal, there's a 'Options' section with several 'EDIT' and 'PHOTOS' buttons. At the bottom right of the modal is a blue 'SUBMIT' button.

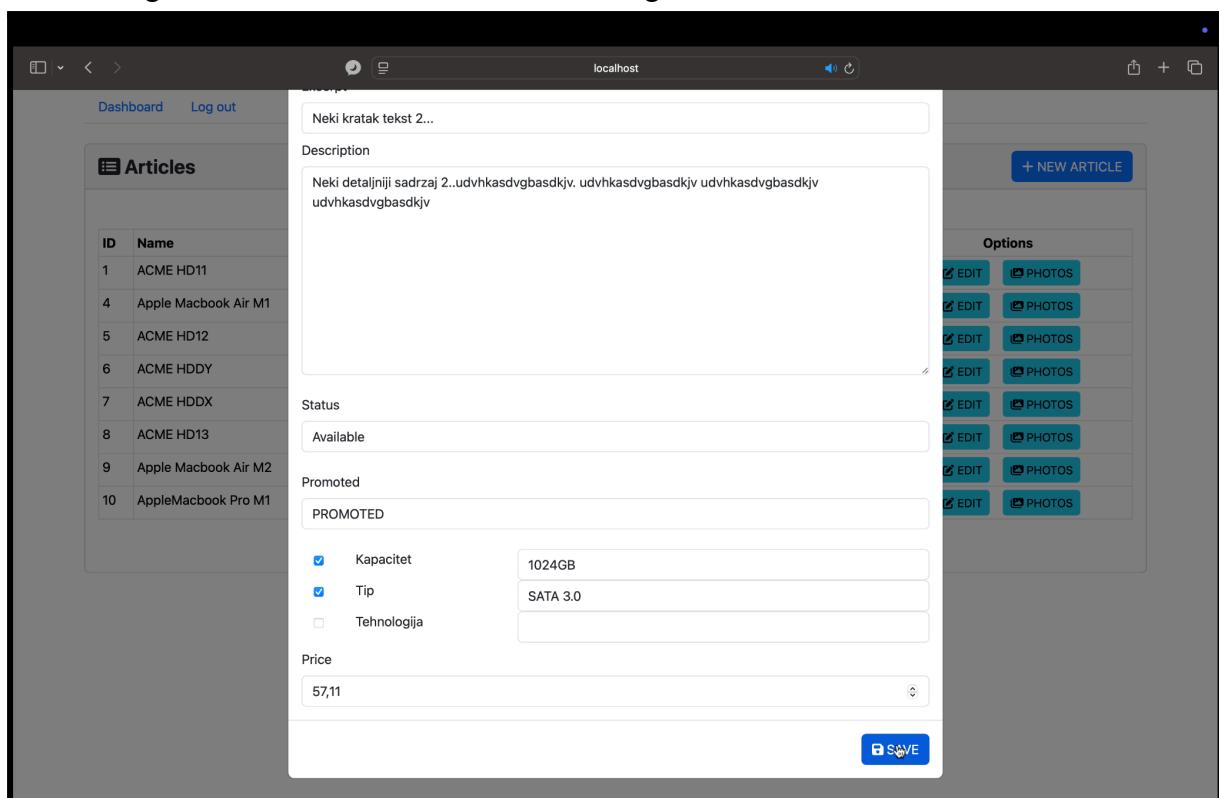
16. When the form is filled out correctly, clicking "SUBMIT" will add a new article. If the form is filled out with incorrect data, a message will be displayed indicating where the error was made (which constraints were not met).

This screenshot is identical to the previous one, showing the 'Add new article' modal with the same form fields and values. The only difference is that the 'SUBMIT' button at the bottom right of the modal is now highlighted in blue, indicating it has been clicked or is active.

17. By clicking on "EDIT," a form appears with predefined content for the selected article, which can be modified.



18. Clicking on the "SAVE" button saves the changes.



19. By clicking on "PHOTOS," there is an option to add a new photo or, if the article has two or more photos, to delete a photo. Each article must have at least one photo, so it is not possible to delete the last remaining photo.

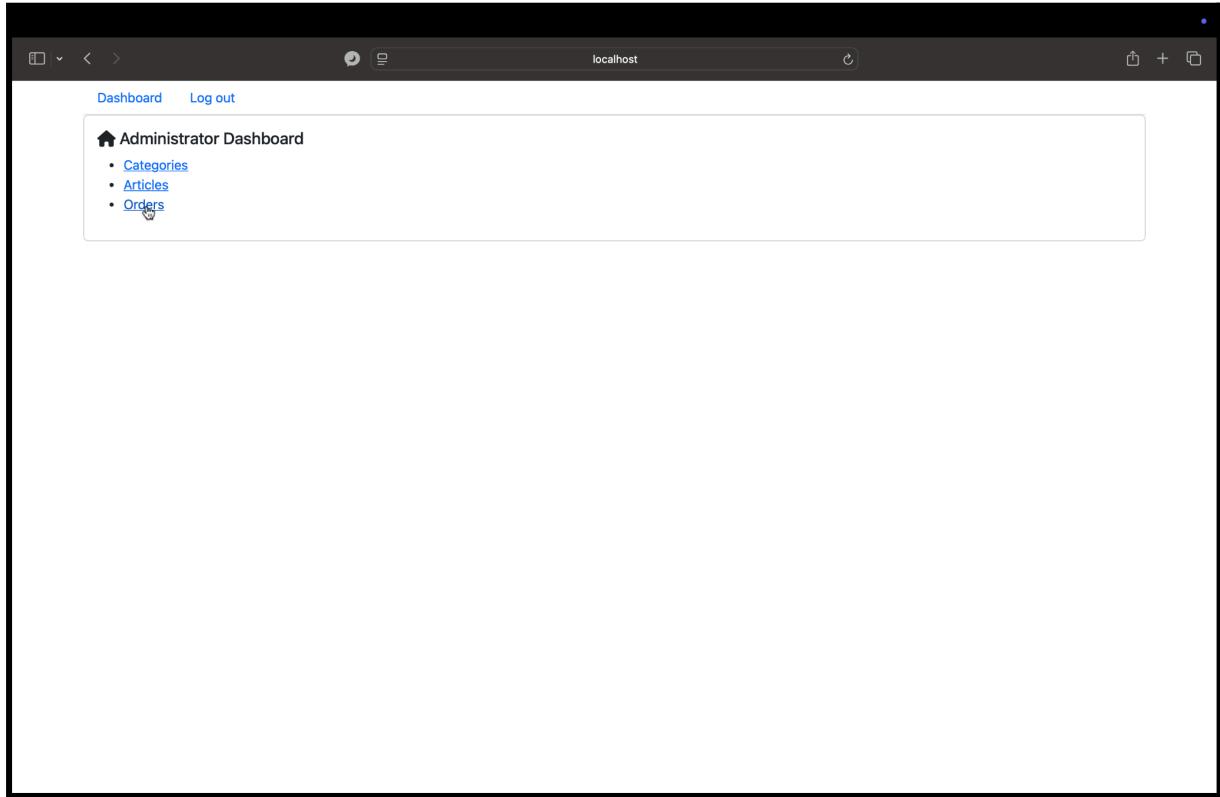
The screenshot shows a web browser window with the URL 'localhost'. The title bar includes standard icons for back, forward, and search. Below the title bar, the navigation menu shows 'Dashboard' and 'Log out'. The main content area is titled 'Articles' with a sub-section icon. A blue button labeled '+ NEW ARTICLE' is visible. Below the title, there is a table with the following columns: ID, Name, Category, Status, Promoted, Price, and Options. The table contains 10 rows of data. Each row has a 'EDIT' button and a 'PHOTOS' button. The 'PHOTOS' button for the first row is highlighted with a mouse cursor. The data in the table is as follows:

ID	Name	Category	Status	Promoted	Price	Options
1	ACME HD11	Hard diskovi	available	YES	57.11 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
4	Apple Macbook Air M1	Laptop/računari	available	YES	1800.00 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
5	ACME HD12	Hard diskovi	available	YES	59.15 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
6	ACME HDDY	Hard diskovi	available	-	54.56 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
7	ACME HDDX	Hard diskovi	available	YES	54.56 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
8	ACME HD13	Hard diskovi	available	-	54.56 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
9	Apple Macbook Air M2	Laptop/računari	available	-	1900.00 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS
10	AppleMacbook Pro M1	Laptop/računari	hidden	YES	100.00 BAM	<input checked="" type="button"/> EDIT <input type="button"/> PHOTOS

## 20. Adding and Deleting Photos

The screenshot shows a web browser window with the URL 'localhost'. The title bar includes standard icons for back, forward, and search. Below the title bar, the navigation menu shows 'Dashboard' and 'Log out'. The main content area is titled 'Photos' with a camera icon. At the top left, there is a link 'Back to articles'. Below the title, there are two images of hard drives, each with a red 'DELETE' button below it. Below the images, there is a section titled 'Add a new photo for this article'. It includes a file input field with the placeholder 'Add article photo' and a message 'Odaberi datoteku datoteka nije odabrana'. A blue 'UPLOAD' button is located at the bottom of this section.

21. By clicking on "Orders," you get an overview of all orders sorted by current status, with the ability to change the status of an order and to view the cart of that order.

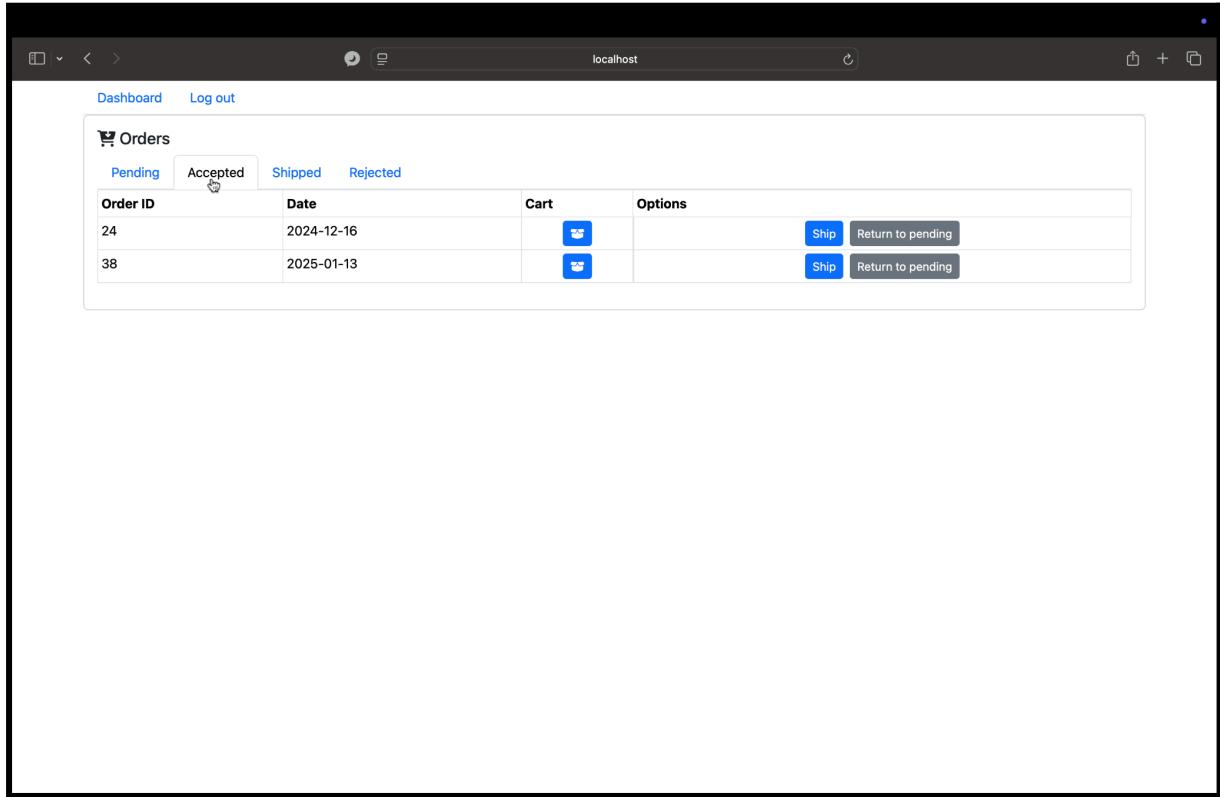


22. If the order status is "pending," you can accept or reject the order.

A screenshot of a web browser window titled 'localhost'. The page has a dark header with standard navigation icons. Below the header is a light-colored sidebar containing a 'Dashboard' link and a 'Log out' link. Underneath the sidebar, the main content area is titled 'Orders' with a shopping cart icon. At the top of the main area, there are four tabs: 'Pending' (which is selected and highlighted in blue), 'Accepted', 'Shipped', and 'Rejected'. Below the tabs is a table with the following data:

Order ID	Date	Cart	Options
25	2024-12-18		<button>Accept</button> <button>Reject</button>
27	2024-12-18		<button>Accept</button> <button>Reject</button>
28	2024-12-18		<button>Accept</button> <button>Reject</button>
29	2024-12-18		<button>Accept</button> <button>Reject</button>
30	2024-12-19		<button>Accept</button> <button>Reject</button>
31	2024-12-19		<button>Accept</button> <button>Reject</button>
32	2024-12-20		<button>Accept</button> <button>Reject</button>
33	2024-12-30		<button>Accept</button> <button>Reject</button>
36	2025-01-02		<button>Accept</button> <button>Reject</button>

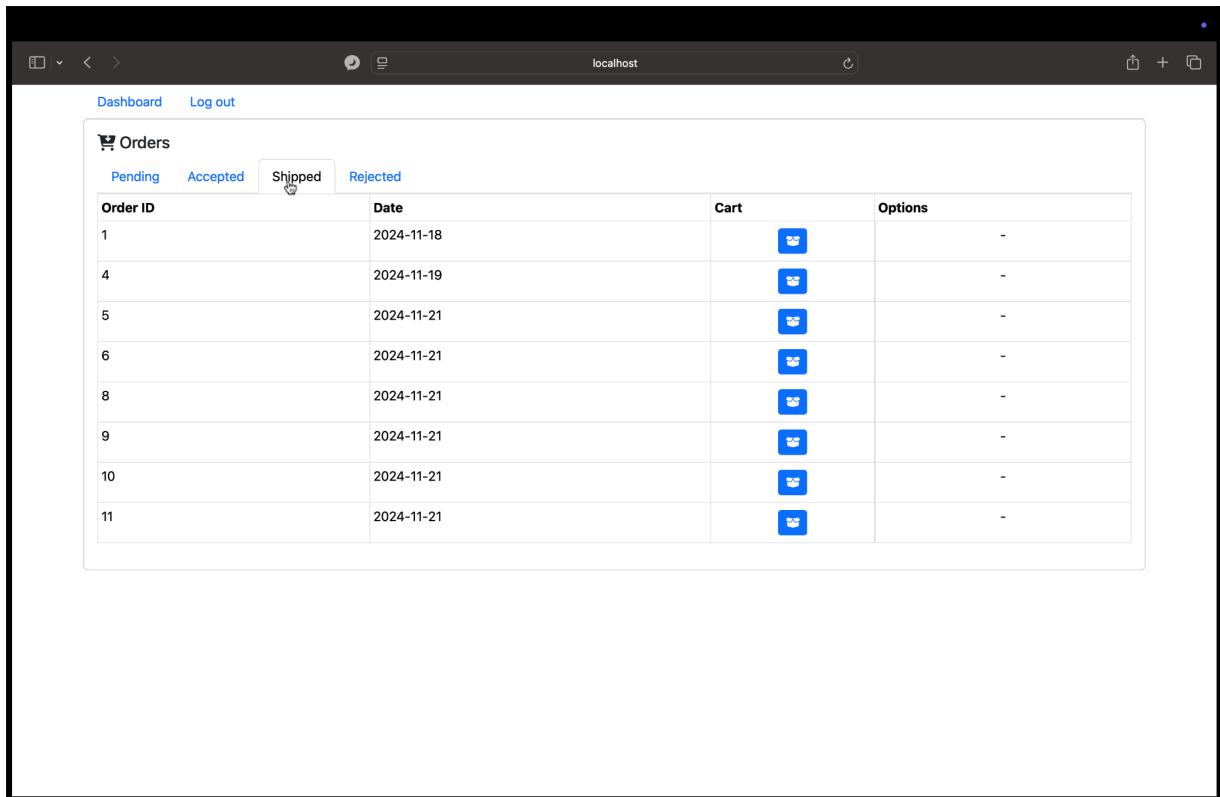
23. Orders with the status "accepted" can be shipped or reverted to sent (to undo the acceptance).



A screenshot of a web browser window titled 'localhost'. The page displays a table of orders under the heading 'Orders'. The table has columns for 'Order ID', 'Date', 'Cart', and 'Options'. There are four rows in the table. The first row contains Order ID 24 and Date 2024-12-16. The second row contains Order ID 38 and Date 2025-01-13. In the 'Options' column for each row, there are two buttons: 'Ship' and 'Return to pending'. A mouse cursor is hovering over the 'Accepted' tab at the top of the table.

Order ID	Date	Cart	Options
24	2024-12-16		<a href="#">Ship</a> <a href="#">Return to pending</a>
38	2025-01-13		<a href="#">Ship</a> <a href="#">Return to pending</a>

24. Orders with the status "shipped"



A screenshot of a web browser window titled 'localhost'. The page displays a table of orders under the heading 'Orders'. The table has columns for 'Order ID', 'Date', 'Cart', and 'Options'. There are eight rows in the table, each representing an order from 1 to 11. The 'Cart' column for all rows contains an icon of a person carrying a box. The 'Options' column for all rows contains a single character '-'.

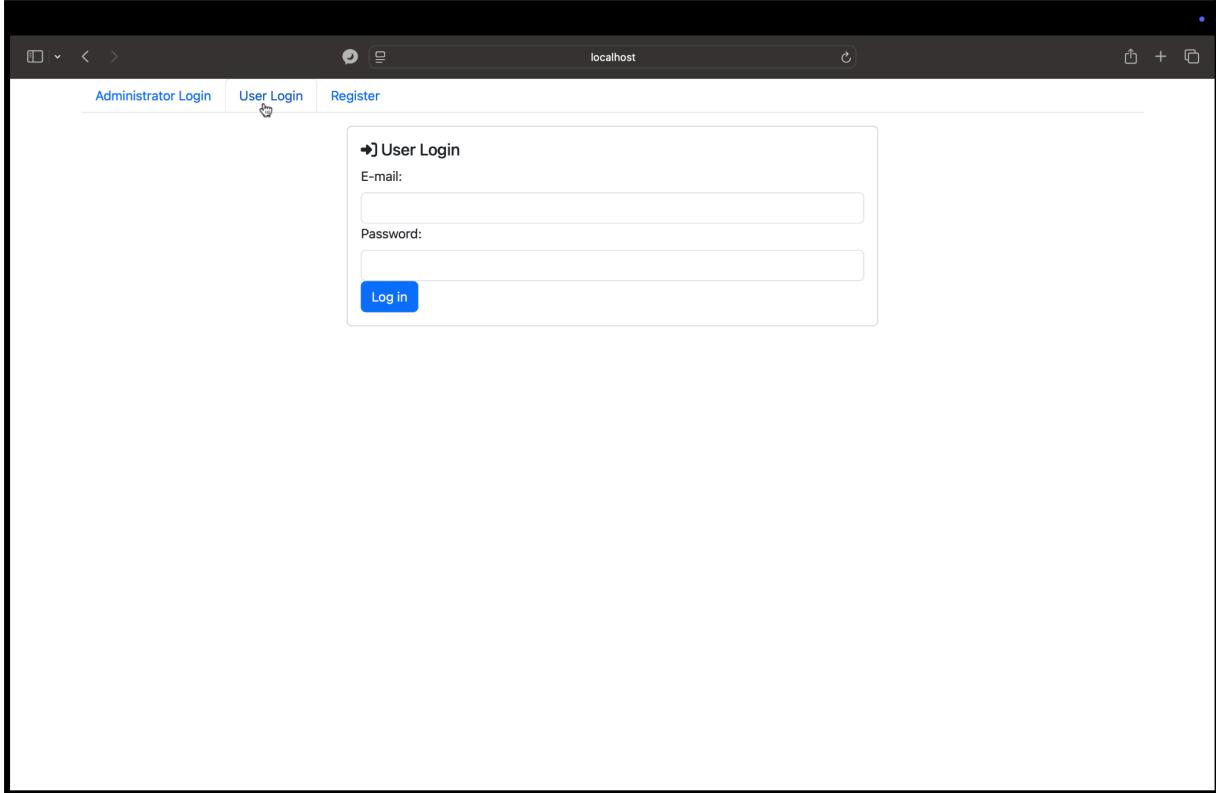
Order ID	Date	Cart	Options
1	2024-11-18		-
4	2024-11-19		-
5	2024-11-21		-
6	2024-11-21		-
8	2024-11-21		-
9	2024-11-21		-
10	2024-11-21		-
11	2024-11-21		-

25. Orders with the status "rejected" can be reverted to the "pending" status only if they are not older than 7 days.

Order ID	Date	Cart	Options
3	2024-11-19		-
7	2024-11-21		-
12	2024-11-21		-
13	2024-11-21		-
14	2024-11-21		-
15	2024-11-21		-
16	2024-11-21		-
17	2024-11-21		-
18	2024-11-21		-
19	2024-11-21		-
20	2024-11-21		-
21	2024-11-21		-
22	2024-11-21		-
23	2024-12-16		-
26	2024-12-16		-

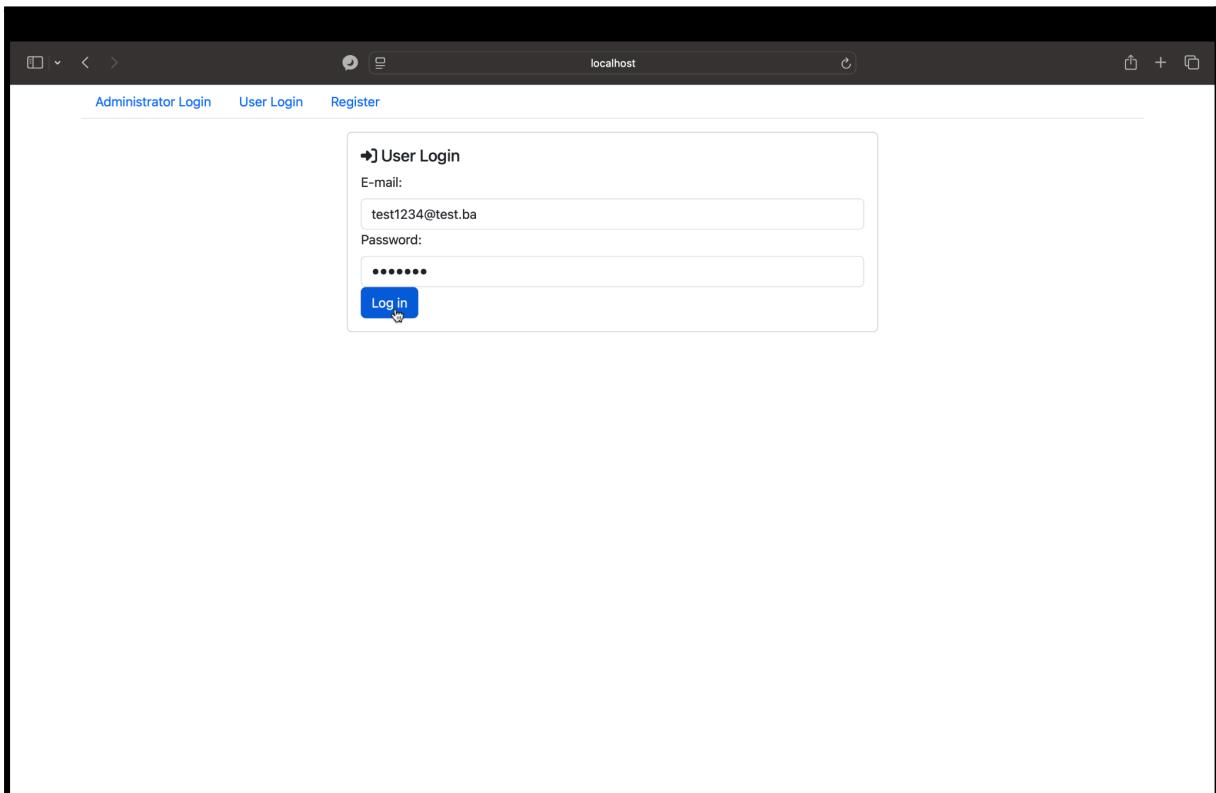
# USER ROLE

## 1. User Login



The screenshot shows a web browser window with the URL "localhost" in the address bar. The title bar has three tabs: "Administrator Login", "User Login", and "Register". The "User Login" tab is currently selected, indicated by a mouse cursor icon pointing at it. Below the tabs is a login form with a light gray background. The form is titled "User Login" with a small icon of a user and a lock. It contains two input fields: one for "E-mail" containing the placeholder "test1234@test.ba" and one for "Password" containing six dots ("....."). At the bottom of the form is a blue "Log in" button with white text.

2. After entering the email and password, the login is performed by clicking the "Log in" button or pressing ENTER.



This screenshot is identical to the previous one, showing the "User Login" page with the "User Login" tab active. The form fields now contain the entered values: "test1234@test.ba" in the E-mail field and "....." in the Password field. The "Log in" button is highlighted with a blue border and a white mouse cursor icon is positioned over it, indicating it is the target of the next click.

### 3. User's homepage.

The screenshot shows a web browser window with a dark header bar containing navigation links: Home, Contact, My Orders, Log out, and a shopping cart icon with '(0)'. Below the header is a section titled 'Top level categories' with two items: 'Računarske komponente' and 'Kućna elektronika', each with an 'Open category' button. The main body of the page is currently empty.

### 4. Display of items within a category.

The screenshot shows a web browser window with a dark header bar containing navigation links: Home, Contact, My Orders, Log out, and a shopping cart icon with '(0)'. The main content area is titled 'Hard diskovi'. On the left, there is a sidebar with filters: 'Search keywords:' input field, 'Min price:' and 'Max price:' dropdowns set to 0,01 and 100000 respectively, 'Sort by...' dropdown set to 'price- ascending', 'Kapacitet' checkboxes for 1024GB and 512GB, 'Tip' checkbox for SATA 3.0, and a 'Technologija' section with a 'Search' button. The main area displays five product cards for different hard drives:

- ACME HD11**  
Neki kratak tekst 2...  
Price: 54.56 BAM  
Buy
- ACME HDDY**  
Neki kratak tekst 2...  
Price: 54.56 BAM  
Buy
- ACME HDDX**  
Neki kratak tekst 2...  
Price: 54.56 BAM  
Buy
- ACME HD13**  
Neki kratak tekst 2...
- ACME HD12**  
Neki kratak opis...

Each card features a small image of a hard drive and a 'Show article' button.

5. It is possible to filter items by keywords (name and short description), price, features, and sort them by name or price in ascending or descending order.

The screenshot shows a web application interface for a store. At the top, there is a navigation bar with links for Home, Contact, My Orders, Log out, and a shopping cart icon showing (0). Below the navigation bar, the page title is "Hard diskovi".  
The left sidebar contains filtering options:

- Search keywords: An input field.
- Min price: 0,01
- Max price: 100000
- Sort by...: A dropdown menu set to "price- ascending".
- Kapacitet (Capacity):
  - 1024GB
  - 512GB
- Tip (Type):
  - SATA 3.0
- Tehnologija (Technology):
  - Search

  
The main content area displays a grid of six hard disk drives, each with a thumbnail image, product name, a short description, and a "Buy" button.

Product Name	Description	Buy
ACME HD11	Neki kratak tekst 2...	Buy
ACME HDDY	Neki kratak tekst 2...	Buy
ACME HDDX	Neki kratak tekst 2...	Buy
ACME HD13	Neki kratak tekst 2...	Show article
ACME HD12	Neki kratak opis...	Show article

## 6. Filtering

This screenshot shows the same web application after applying filters. The sidebar now only displays the selected items:

- 1024GB
- 512GB
- SATA 3.0

  
The main content area now displays a grid of three hard disk drives, each with a thumbnail image, product name, a short description, and a "Buy" button.

Product Name	Description	Buy
ACME HDDX	Neki kratak tekst 2...	Buy
ACME HD13	Neki kratak tekst 2...	Buy
ACME HD11	Neki kratak tekst 2...	Buy

  
A fourth hard disk drive, ACME HDDY, is visible at the bottom of the grid, but its details are not fully displayed.

## 7. Contact page.

A screenshot of a web browser window titled "localhost". The navigation bar includes links for "Home", "Contact" (which is highlighted), "My Orders", "Log out", and a shopping cart icon showing "(0)". The main content area is titled "Contact details" and contains two lines of social media links: "LinkedIn: [adrian\\_jurisic](#)" and "Github: [adrianjurisic](#)". In the bottom right corner of the content area, there is a small note: "Created by Adrian Jurišić".

## 8. Overview of orders placed by the currently logged-in user.

A screenshot of a web browser window titled "localhost". The navigation bar includes links for "Home", "Contact", "My Orders" (which is highlighted), "Log out", and a shopping cart icon showing "(0)". The main content area is titled "My Orders" and displays a table of recent orders. The columns are "Created at" (listing dates like "2024-12-30T16:03:53.000Z", "2024-12-30T16:06:16.000Z", etc.) and "Status" (listing "pending", "rejected", "rejected", "pending", and "accepted"). Each row has a blue rectangular button with a white icon to its right.

Created at	Status
2024-12-30T16:03:53.000Z	pending
2024-12-30T16:06:16.000Z	rejected
2024-12-30T16:10:00.000Z	rejected
2025-01-02T16:56:20.000Z	pending
2025-01-13T16:30:07.000Z	accepted

## 9. Cart overview.

The screenshot shows a web browser window with the URL "localhost". The page title is "My Orders". The content area displays a table with two columns: "Created at" and "Status".

Created at	Status
2024-12-30T16:03:53.000Z	pending
2024-12-30T16:06:16.000Z	rejected
2024-12-30T16:10:00.000Z	rejected
2025-01-02T16:56:20.000Z	pending
2025-01-13T16:30:07.000Z	accepted

Each row in the table has a blue rectangular button with a white icon (possibly a trash bin or edit symbol) to its right.

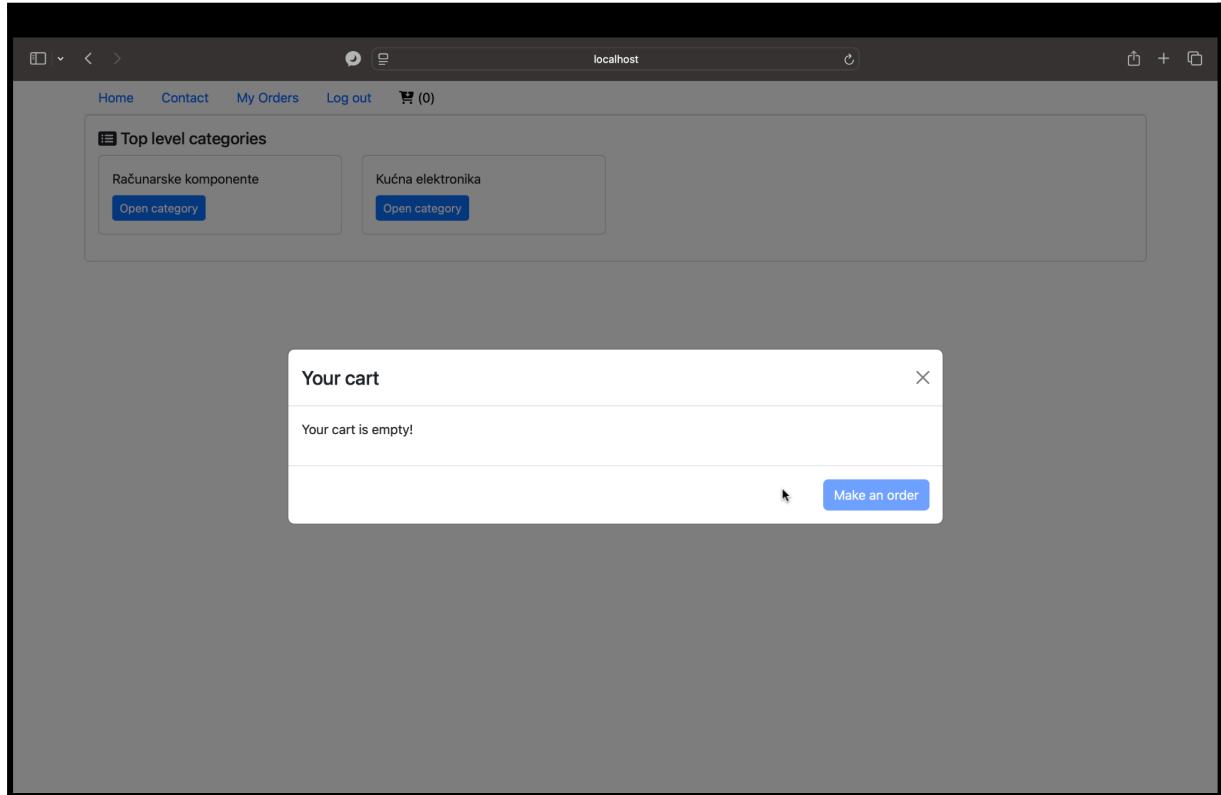
## 10. List of order items.

The screenshot shows a web browser window with the URL "localhost". The page title is "My Orders". A modal dialog box is open in the center of the screen, titled "Your order content".

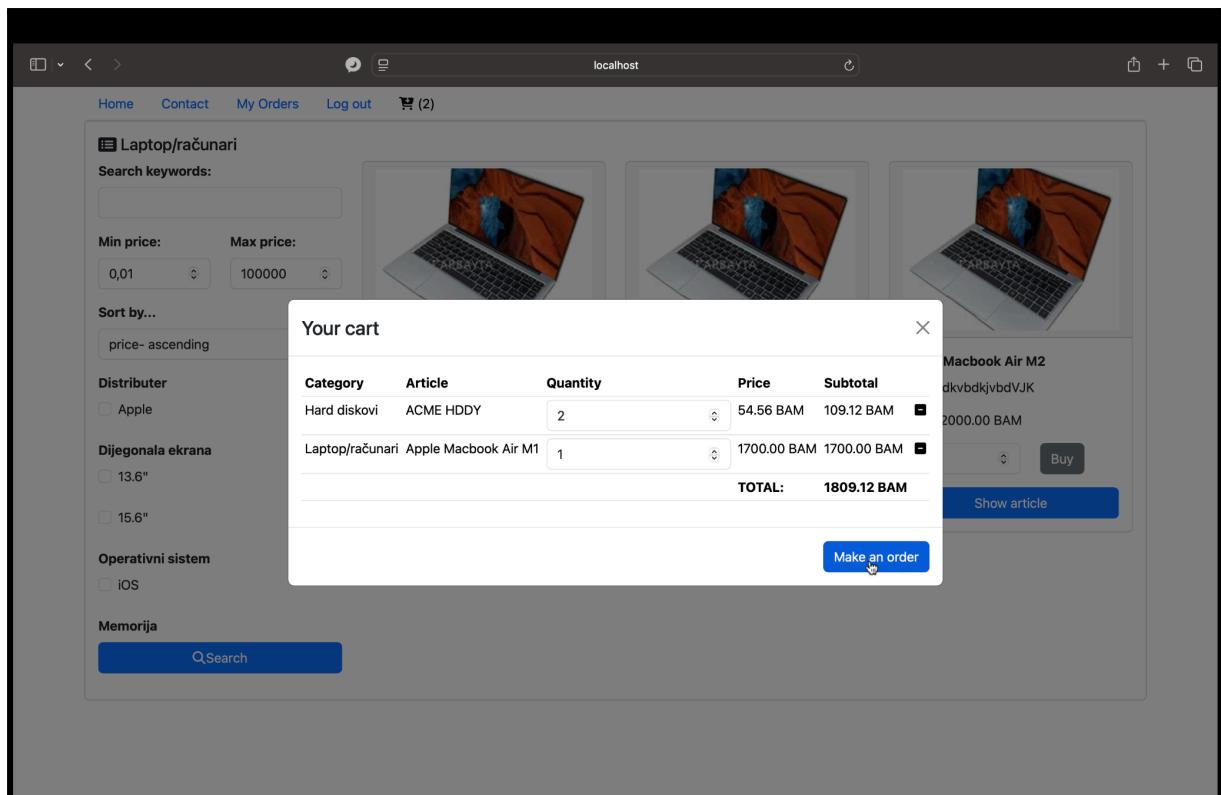
The modal dialog box contains a table with the following data:

Category	Article	Quantity	Price	Subtotal
Hard diskovi	ACME HDDY	1	54.56 BAM	54.56 BAM
TOTAL:				<b>54.56 BAM</b>

11. Cart overview, where the "Make an order" button remains inactive until at least one item is added to the cart.



12. Viewing the current cart and placing an order.



## 13. Order sent

A screenshot of a web browser window titled "localhost". The page is a search results page for "Laptop/računari". A modal dialog box is centered on the screen with the title "Your cart". Inside the dialog, a green message box says "Order sent! Thank You!". Below it is a blue button labeled "Make an order". In the background, there are three product cards for "Macbook Air M2" laptops, each with a price of "2000.00 BAM". On the left side of the page, there are filters for "Distributor" (Apple), "Dijagonala ekrana" (13.6" and 15.6"), "Operativni sistem" (iOS), and "Memorija". A search bar at the bottom left contains the text "Search".

## 14. Item overview

A screenshot of a web browser window titled "localhost". The page displays a product overview for a hard drive. At the top, there is a header with icons for Home, Contact, My Orders, Log out, and a shopping cart icon showing "(0)". The main content area features a large image of an open hard drive with internal components labeled: "Glave" (heads), "Mechanizam glava" (head mechanism), and "Plote" (platters). To the left of the image, the product name "ACME HD12" is shown with a small icon. Below the name, there is a section for "Excerpt" containing the text "Neki kratak opis...". Under "Description", it says "Detaljan opis ce da bude ovdje....". In the "Features" section, there is a bulleted list: "• Kapacitet: 512GB" and "• Tip: SATA 3.0". At the bottom right, the price is listed as "Price: 59.15 EUR". Below the price is a quantity selector set to "1" and a blue "Buy" button.

## 15. User registration

The screenshot shows a web browser window with a registration form. The browser's address bar displays "localhost". The top navigation bar includes links for "Administrator Login", "User Login", and "Register", with "Register" being the active tab, indicated by a blue border and a cursor icon.

The main content area is titled "User Registration" with a small user icon. It contains the following fields:

- E-mail: [Text input field]
- Forename: [Text input field]
- Surname: [Text input field]
- Phone number: [Text input field]
- Address: [Text input field]

At the bottom left of the form is a blue "Register" button.