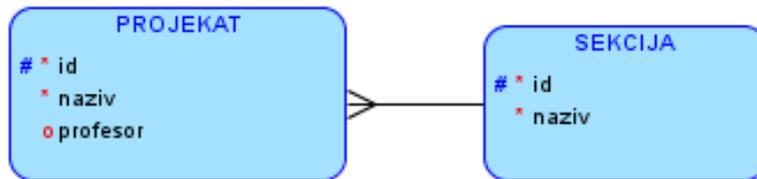


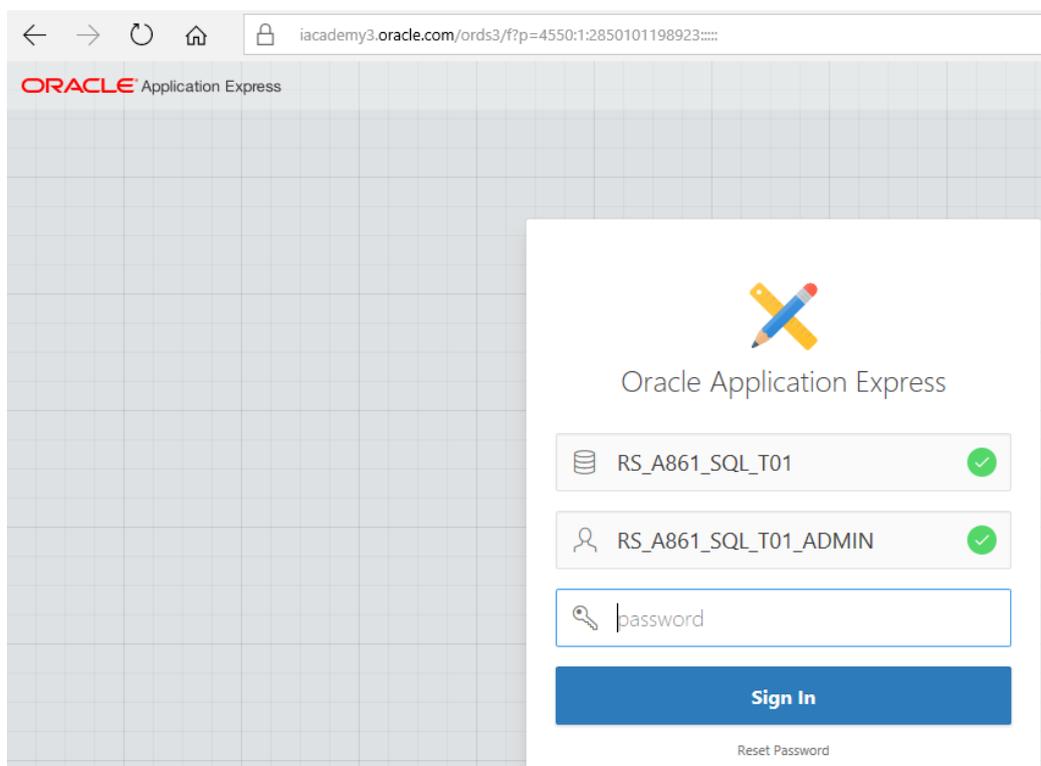
Biznis scenario:

U školi postoje četiri sekcije sportska, dramska, likovna i novinarska. Svaka sekcija ima nekoliko aktuelnih projekata. Likovna ima četiri projekta. Za projekte Pikaso, Rubens i Rembrant je mentor Jovana Jovanović, a za projekat Dali je mentor Biljana Jocić. Novinarska sekcija ima dva projekta: veb-novinarstvo i putopisi, mentor Anja Mišić.



sekcije		
pk	*	id_sekcije
	*	naziv

projekti		
pk	*	id_projekta
	*	naziv
	O	profesor
fk	*	id_sekcije



ORACLE Application Express

Application Builder | SQL Workshop | Team Development | Packaged Apps

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Top Applications | Top Users | News and Messages

Top Applications	Top Users	News and Messages
	rs_a861_sql_t01_admin 5	

About

Application Express is a rapid Web application development tool that lets you share data and create applications. Using only a Web browser and limited programming experience, you can develop and deploy applications that are fast and secure.

Dashboard

Applications: 0 | Tables: 0

Features: 0 | Packaged Apps: 0

Available Updates

Patch Set 5.0.4.00.12 is available
[\[More Information\]](#)
 Oracle APEX 5.1.2 is available
[\[More Information\]](#)

Accessibility Mode

20:35 20/09/2017

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Object Browser

SQL Commands

SQL Scripts

Utilities

RESTful Services

Application Builder | SQL Workshop | Team Development

ORACLE Application Express

Application Builder | SQL Workshop | Team Development | Packaged Apps

Object Browser

Schema: RS_A861_SQL_T01_ADMIN

Tables

Create

Tables



- Table
- View
- Index
- Sequence
- Type
- Package
- Procedure
- Function
- Trigger
- Database Link
- Materialized View
- Synonym

Create Table



Columns

Table Name

Preserve Case

Column Name	Type	Precision	Scale	Not Null	Move
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v
<input type="text"/>	- Select Datatype -				^v

Add Column

Cancel

Next >

* Table Name: ?

Preserve Case

Column Name	Type	Precision	Scale	Not Null	Move
<input type="text" value="id_sekcije"/>	NUMBER	<input type="text"/>	<input type="text" value="5"/>	<input type="checkbox"/>	^ v
<input type="text" value="naziv"/>	VARCHAR2		<input type="text" value="20"/>	<input checked="" type="checkbox"/>	^ v
<input type="text"/>	- Select Datatype -				^ v
<input type="text"/>	- Select Datatype -				^ v
<input type="text"/>	- Select Datatype -				^ v
<input type="text"/>	- Select Datatype -				^ v
<input type="text"/>	- Select Datatype -				^ v
<input type="text"/>	- Select Datatype -				^ v

Create Table

Primary Key

Table name: ?

Primary Key: No Primary Key ?

Populated from a new sequence

Populated from an existing sequence

Not populated

* Primary Key Constraint Name: ?

* Primary Key: ?

* Sequence Name: ?

Primary Key

A primary key allows each row in a table to be uniquely identified.

If you select to populate your primary key from a new sequence, you will be prompted to enter the new sequence's name. If you select to populate your primary key from an existing sequence, you will be prompted to select the sequence. Both these methods result in the generation of a trigger against your table. You can also select to not populate your primary. This is the only method that allows you to define a composite primary key made up of more than two columns.

ako tabela ima kompozitni (složeni) primarni ključ, bira se Not populated pa bi se

u sledećim koracima izabrati dve kolone koje čine složeni primarni ključ (jedna kolona je Primary Key, a druga je Composite Primary Key)

Create Table



Foreign Keys

Foreign Key Columns Referenced Table Referenced Columns Action

Add Foreign Key

Name

- Disallow Delete
 Cascade Delete
 Set Null on Delete

Add

Select Key Column(s)

References Table

Referenced Column(s)

Foreign Key

A foreign key establishes a relationship between a column or columns in one table and a primary or unique key in another table. To define a foreign key:

- Select one or more columns and click the **Add** icon.
- Select the table name that has the corresponding primary key.
- Select the corresponding primary key column or columns and click the **Add** icon.
- Select **Disallow Delete** to block delete of rows from the referenced table when there are dependant rows in this table.
- Select **Cascade Delete** to delete the dependant rows from this table when the corresponding parent table row is deleted.
- Select **Set to Null on Delete** to set foreign key column values to null when the corresponding parent table row is deleted.
- Click **Add**.

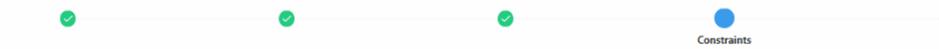
You can define more than one foreign key on this page but only those displayed in the report at the top of the page will be included in the resulting create table statement.

Cancel

Next >

izabere se next

Create Table



Constraint Name Type Column(s)/Check

Add

Constraint Type Check Unique

Check Condition

Key Column(s)

Name

> Available Columns

> Example Check Constraints

Constraints

Use this page to define constraints for your table. You can create multiple constraints of each type but must **Add** each constraint. Only those constraints displayed in the report at the top of the page will be included in the resulting create table statement.

Check Constraint

A check constraint is a validation check on one or more columns within the table. No value can be inserted or updated in a table which violates an enabled check constraint.

A unique constraint designates a column or a combination of columns as a unique key. To satisfy a unique constraint, no two rows in the table can have the same values for the specified columns.

Cancel

Next >

klik na next

Create Table

✓ — ✓ — ✓ — ✓ — ● **Confirm**

Please confirm your request.

Schema: **RS_A861_SQL_T01_ADMIN** ?

Table name: **SEKCIJE** ?

> SQL

Cancel
Create Table

klik na create table

Object Browser Schema: RS_A861_SQL_T01_ADMIN ?

Tables
↕

↻

SEKCIJE

SEKCIJE + ▾

Table
Data
Indexes
Model
Constraints
Grants
Statistics
UI Defaults
Triggers
Dependencies
S

Add Column
Modify Column
Rename Column
Drop Column
Rename
Copy
Drop
Truncate

Create Lookup Table

Column Name	Data Type	Nullable	Default	Primary Key
ID_SEKCIJE	NUMBER(5,0)	No	-	1
NAZIV	VARCHAR2(20)	No	-	-

Download

klik na sql daje kod izvrsne naredbe CREATE TABLE

Schema: RS_A861_SQL_T01_ADMIN ?

SEKCIJE + ▾

Table
Data
Indexes
Model
Constraints
Grants
Statistics
UI Defaults
Triggers
Dependencies
S

```

CREATE TABLE "SEKCIJE"
(
  "ID_SEKCIJE" NUMBER(5,0),
  "NAZIV" VARCHAR2(20) NOT NULL ENABLE,
  CONSTRAINT "SEKCIJE_PK" PRIMARY KEY ("ID_SEKCIJE")
  USING INDEX ENABLE
)
/
          
```

kreiranje druge tabele

Create Table

Columns

* Table Name ?

Preserve Case

Column Name	Type	Precision	Scale	Not Null	Move
<input type="text" value="id_projekta"/>	NUMBER	<input type="text"/>	<input type="text" value="6"/>	<input type="checkbox"/>	^ v
<input type="text" value="naziv"/>	VARCHAR2	<input type="text"/>	<input type="text" value="40"/>	<input checked="" type="checkbox"/>	^ v
<input type="text" value="profesor"/>	VARCHAR2	<input type="text"/>	<input type="text" value="30"/>	<input type="checkbox"/>	^ v
<input type="text" value="id_sekcije"/>	NUMBER	<input type="text"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	^ v
<input type="text"/>	- Select Datatype -	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	^ v
<input type="text"/>	- Select Datatype -	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	^ v
<input type="text"/>	- Select Datatype -	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	^ v
<input type="text"/>	- Select Datatype -	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	^ v

Add Column

Next >

klik na next

Create Table

Primary Key

Table name: **PROJEKTI** ?

Primary Key: No Primary Key ?
 Populated from a new sequence
 Populated from an existing sequence
 Not populated

* Primary Key Constraint Name ?

* Primary Key ?

* Sequence Name ?

Primary Key

A primary key allows each row in a table to be uniquely identified.

If you select to populate your primary key from a new sequence, you will be prompted to enter the new sequence's name. If you select to populate your primary key from an existing sequence, you will be prompted to select the sequence. Both these methods result in the generation of a trigger against your table. You can also select to not populate your primary. This is the only method that allows you to define a composite primary key made up of more than two columns.

Cancel

Next >

klik na next

Create Table



Foreign Keys

Foreign Key Columns Referenced Table Referenced Columns Action

Add Foreign Key

Name

- Disallow Delete
 Cascade Delete
 Set Null on Delete

Add

Select Key Column(s)

References Table

Referenced Column(s)

Foreign Key

A foreign key establishes a relationship between a column or columns in one table and a primary or unique key in another table. To define a foreign key:

- Select one or more columns and click the **Add** icon.
- Select the table name that has the corresponding primary key.
- Select the corresponding primary key column or columns and click the **Add** icon.
- Select **Disallow Delete** to block delete of rows from the referenced table when there are dependant rows in this table.
- Select **Cascade Delete** to delete the dependant rows from this table when the corresponding parent table row is deleted.
- Select **Set to Null on Delete** to set foreign key column values to null when the corresponding parent table row is deleted.
- Click **Add**.

You can define more than one foreign key on this page but only those displayed in the report at the top of the page will be included in the resulting create table statement.

Cancel

Next >

klik na next

Create Table



Constraint Name Type Column(s)/Check

Constraint Type Check Unique

Check Condition

Key Column(s)

Name

Add

> Available Columns

> Example Check Constraints

Constraints

Use this page to define constraints for your table. You can create multiple constraints of each type but must **Add** each constraint. Only those constraints displayed in the report at the top of the page will be included in the resulting create table statement.

Check Constraint

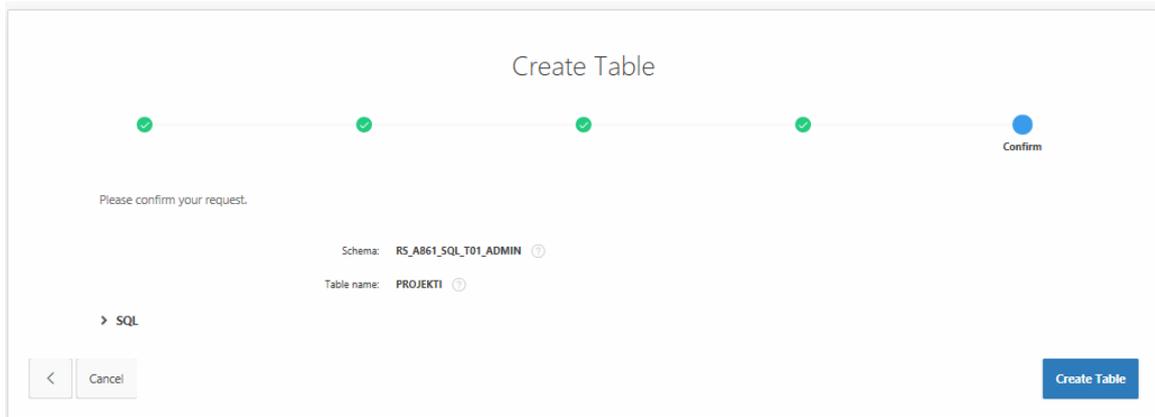
A check constraint is a validation check on one or more columns within the table. No value can be inserted or updated in a table which violates an enabled check constraint.

A unique constraint designates a column or a combination of columns as a unique key. To satisfy a unique constraint, no two rows in the table can have the same values for the specified columns.

Cancel

Next >

klik na next



create table

PROJEKTI																																																		
Table	Data	Indexes	Model	Constraints	Grants	Statistics	UI Defaults	Triggers	Dependencies	SQL																																								
<div style="display: flex; justify-content: space-between;"> Create Drop Enable Disable </div> <table border="1"> <thead> <tr> <th>Constraint</th> <th>Type</th> <th>Search Condition</th> <th>Related Constraint</th> <th>Columns</th> <th>Delete Rule</th> <th>Status</th> <th>Last Change</th> <th>Index</th> <th>Invalid</th> </tr> </thead> <tbody> <tr> <td>SYS_C003852427</td> <td>Check</td> <td>"NAZIV" IS NOT NULL</td> <td>-</td> <td>-</td> <td>-</td> <td>ENABLED</td> <td>10/08/2017 03:42:42 AM</td> <td>-</td> <td>-</td> </tr> <tr> <td>SYS_C003852428</td> <td>Check</td> <td>"ID_SEKCIJE" IS NOT NULL</td> <td>-</td> <td>-</td> <td>-</td> <td>ENABLED</td> <td>10/08/2017 03:42:42 AM</td> <td>-</td> <td>-</td> </tr> <tr> <td>PROJEKTI_PK</td> <td>Primary</td> <td>-</td> <td>-</td> <td>ID_PROJEKTA</td> <td>-</td> <td>ENABLED</td> <td>10/08/2017 03:42:42 AM</td> <td>PROJEKTI_PK</td> <td>-</td> </tr> </tbody> </table>											Constraint	Type	Search Condition	Related Constraint	Columns	Delete Rule	Status	Last Change	Index	Invalid	SYS_C003852427	Check	"NAZIV" IS NOT NULL	-	-	-	ENABLED	10/08/2017 03:42:42 AM	-	-	SYS_C003852428	Check	"ID_SEKCIJE" IS NOT NULL	-	-	-	ENABLED	10/08/2017 03:42:42 AM	-	-	PROJEKTI_PK	Primary	-	-	ID_PROJEKTA	-	ENABLED	10/08/2017 03:42:42 AM	PROJEKTI_PK	-
Constraint	Type	Search Condition	Related Constraint	Columns	Delete Rule	Status	Last Change	Index	Invalid																																									
SYS_C003852427	Check	"NAZIV" IS NOT NULL	-	-	-	ENABLED	10/08/2017 03:42:42 AM	-	-																																									
SYS_C003852428	Check	"ID_SEKCIJE" IS NOT NULL	-	-	-	ENABLED	10/08/2017 03:42:42 AM	-	-																																									
PROJEKTI_PK	Primary	-	-	ID_PROJEKTA	-	ENABLED	10/08/2017 03:42:42 AM	PROJEKTI_PK	-																																									

Constraints pa na create

prvo se unese u Constraint Name (naziv ograničenja): PROJEKTI_SEKCIJE_FK

zatim se promeni Constraint Type (tip ograničenja): Foreign Key

PROJEKTI + v

Add Constraint

Schema: **RS_AB61_SQL_T01_ADMIN** ⓘ

Table: **PROJEKTI** ⓘ

* Constraint Name: ⓘ

Preserve Case

Constraint Type: **Foreign Key** ⓘ

Disallow Delete
 Cascade Delete
 Set Null on Delete

* Foreign Key Column(s)

ID_PROJEKTA	↻		⌵
NAZIV	>>		↑
PROFESOR	>		↓
ID_SEKCUE	<		⌴
	<<		

* Reference Table Name: **- Select Reference Table -** ⓘ

* Reference Table Column(s)

	↻		⌵
	>>		↑
	>		↓
	<		⌴
	<<		

Cancel Next >

Existing Constraints

Existing Columns

klik na ID_SEKCIJE da se izabere ta kolona pa klik na >

* Foreign Key Column(s)

ID_PROJEKTA	↻	ID_SEKCUE	⌵
NAZIV	>>		↑
PROFESOR	>		↓
	<		⌴
	<<		

izabere se Reference Table Name: SEKCIJE

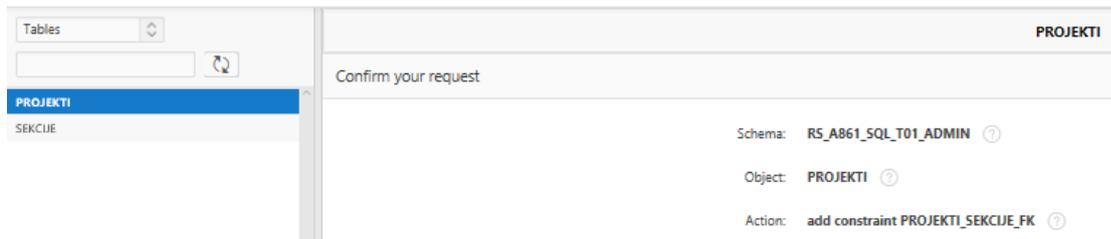
unutar Reference Table Column klikne se na ID_SEKCIJE pa na >

* Reference Table Name: **SEKCIJE** ⓘ

* Reference Table Column(s)

NAZIV	↻	ID_SEKCUE	⌵
	>>		↑
	>		↓
	<		⌴
	<<		

klik na next



klik na Finish

Constraint	Type	Search Condition	Related Constraint	Columns	Delete Rule	Status	Last Change	Index	Invalid
SYS_C003852427	Check	"NAZIV" IS NOT NULL	-	-	-	ENABLED	10/08/2017 03:42:42 AM	-	-
SYS_C003852428	Check	"ID_SEKCIJE" IS NOT NULL	-	-	-	ENABLED	10/08/2017 03:42:42 AM	-	-
PROJEKTI_PK	Primary	-	-	ID_PROJEKTA	-	ENABLED	10/08/2017 03:42:42 AM	PROJEKTI_PK	-
PROJEKTI_SEKCIJE_FK	Foreign	-	PROJEKTI_SEKCIJE_FK (RS_A861_SQL_T01_ADMIN.SEKCIJE)	ID_SEKCIJE	NO ACTION	ENABLED	10/08/2017 03:56:55 AM	-	-

sada se u spisku ograničenja pojavljuje i novo sa definisanim stranim ključem

klikom na model:



Sada se može kreirati aplikacija.

Aplikacija će omogućiti da preko obrazaca se lakše unose podaci u bazu podataka a preko izveštaja se dobijaju željeni izabrani podaci preko sql upita.

```
CREATE TABLE "PROJEKTI"
(
  "ID_PROJEKTA" NUMBER(6,0),
  "NAZIV" VARCHAR2(40) NOT NULL ENABLE,
  "PROFESOR" VARCHAR2(30),
  "ID_SEKCIJE" NUMBER(5,0) NOT NULL ENABLE,
  CONSTRAINT "PROJEKTI_PK" PRIMARY KEY ("ID_PROJEKTA")
  USING INDEX ENABLE
)
/
ALTER TABLE "PROJEKTI" ADD CONSTRAINT "PROJEKTI_FK" FOREIGN KEY ("ID_SEKCIJE")
REFERENCES "SEKCIJE" ("ID_SEKCIJE") ENABLE
/
```

```
CREATE OR REPLACE TRIGGER "BI_PROJEKTI"
before insert on "PROJEKTI"
for each row
begin
  if :NEW."ID_PROJEKTA" is null then
    select "PROJEKTI_SEQ".nextval into :NEW."ID_PROJEKTA" from sys.dual;
  end if;
end;
/
ALTER TRIGGER "BI_PROJEKTI" ENABLE
/
```

```

CREATE TABLE "SEKCIJE"
(
  "ID_SEKCIJE" NUMBER(5,0),
  "NAZIV" VARCHAR2(20) NOT NULL ENABLE,
  CONSTRAINT "SEKCIJE_PK" PRIMARY KEY ("ID_SEKCIJE")
  USING INDEX ENABLE
)
/

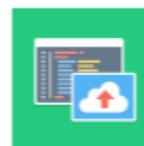
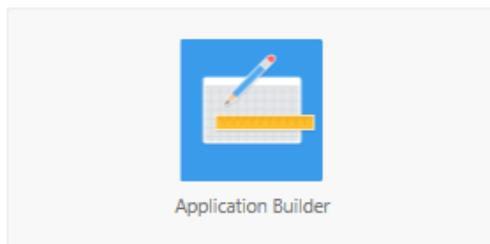
CREATE OR REPLACE TRIGGER "BI_SEKCIJE"
before insert on "SEKCIJE"
for each row
begin
  if :NEW."ID_SEKCIJE" is null then
    select "SEKCIJE_SEQ".nextval into :NEW."ID_SEKCIJE" from sys.dual;
  end if;
end;

/
ALTER TRIGGER "BI_SEKCIJE" ENABLE
/

```

izbor Application Builder

ORACLE Application Express
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Packaged Apps



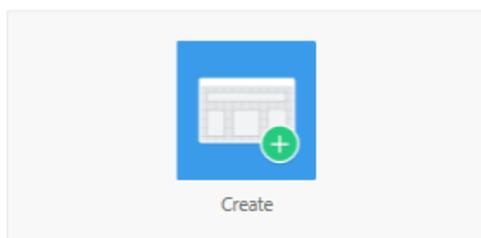
Top Applications

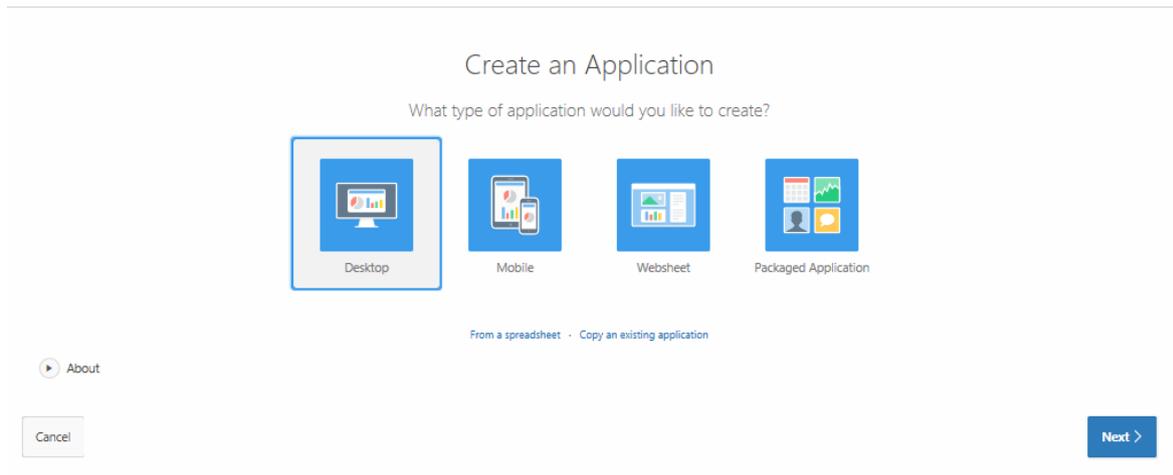
Top Users



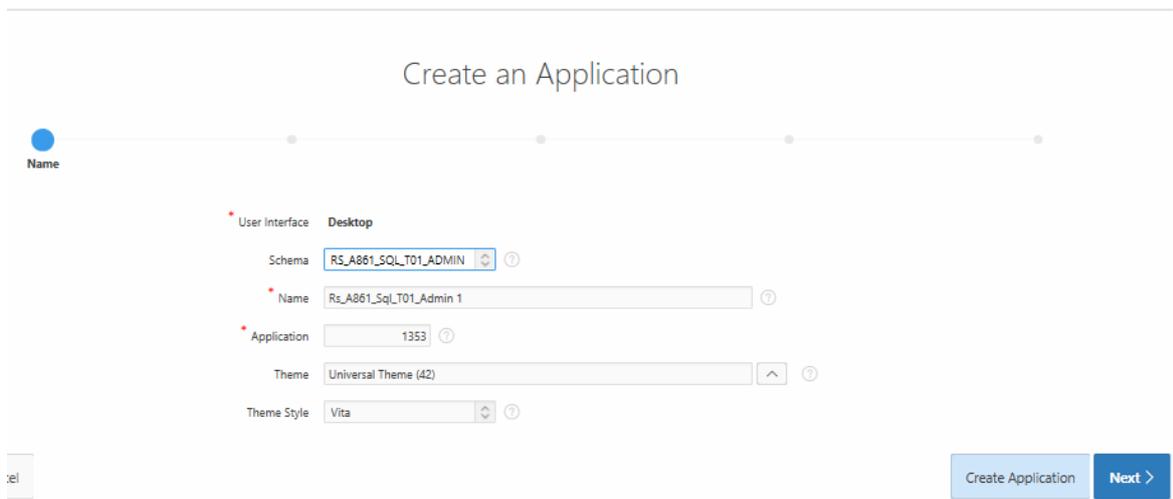
rs_a861_sql_t01_admin

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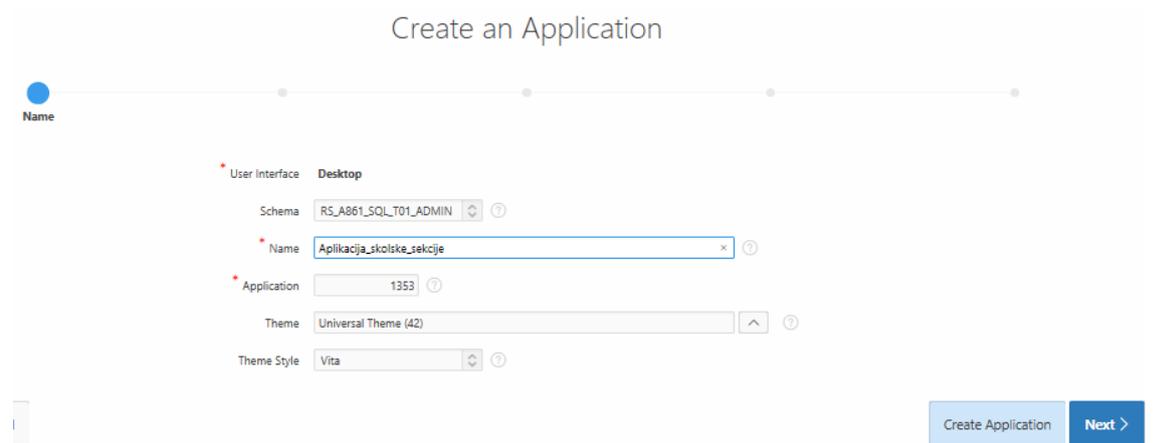




klik na next



promeniti Name (ime aplikacije):



klik na next

Create an Application

Progress indicator: 1st step (green), 2nd step (blue, labeled "Pages"), 3rd step (grey), 4th step (grey), 5th step (grey).

Page	Name	Type	Page Mode	Source Type	Source	Parent Page
	1	Home	Blank	Normal	-	-

Buttons: Cancel, Add Page, Create Application, Next >

sada treba dodati sve stranice aplikacije

klik na Add Page

Create Application

Select Page Type:

- Blank (selected)
- Report
- Report and Form
- Form
- Tabular Form
- Master Detail
- Chart

Action: **Add blank page to application**

Parent Page: - Top Level Page -

Page Name: Page 2

Buttons: Cancel, Add Page

Create Application

Select Page Type:

- Blank
- Report
- Report and Form (selected)
- Form
- Tabular Form
- Master Detail
- Chart

Action: **Add a report with an edit form on a second page**

Parent Page: - Top Level Page -

Table Name: SEKCIJE

Report Type: Interactive

Form Page Mode: Normal

Buttons: Cancel, Add Page

klik na Add Page

Create an Application

Progress indicator: 1 (checked), 2 (selected), 3, 4, 5

	Page	Name	Type	Page Mode	Source Type	Source	Parent Page	
<input checked="" type="checkbox"/>	1	Home	Blank	Normal	-	-	-	×
<input checked="" type="checkbox"/>	2	Sekcije	Report	Normal	Table	SEKCJE	-	×
<input checked="" type="checkbox"/>	3	Sekcije	Form	Normal	Table	SEKCJE	2	×

[Add Page](#)

[Cancel](#) [Create Application](#) [Next >](#)

klik na Add Page

Create Application

Select Page Type:

- Blank
- Report
- Report and Form**
- Form
- Tabular Form
- Master Detail
- Chart

Action: **Add a report with an edit form on a second page**

Parent Page:

Table Name:

Report Type:

Form Page Mode:

[Cancel](#) [Add Page](#)

klik na Add Page

Create an Application

Progress indicator: 1 (checked), 2 (selected), 3, 4, 5

	Page	Name	Type	Page Mode	Source Type	Source	Parent Page	
<input checked="" type="checkbox"/>	1	Home	Blank	Normal	-	-	-	×
<input checked="" type="checkbox"/>	2	Sekcije	Report	Normal	Table	SEKCJE	-	×
<input checked="" type="checkbox"/>	3	Sekcije	Form	Normal	Table	SEKCJE	2	×
<input checked="" type="checkbox"/>	4	Projekti	Report	Normal	Table	PROJEKTI	-	×
<input checked="" type="checkbox"/>	5	Projekti	Form	Normal	Table	PROJEKTI	4	×

[Add Page](#)

[ancel](#) [Create Application](#) [Next >](#)

klik na Next

Create an Application



Shared components are common application elements that can be displayed or applied across multiple pages in an application. To save time or maintain consistency between applications, copy the shared components from an existing application.

Copy Shared Components from Another Application: Yes No

Cancel

Next >

klik na next

Create an Application



Authentication Scheme: No Authentication

Language: English (en)

User Language Preference Derived From: Application Primary Language

Date Format: [dropdown]

Date Time Format: [dropdown]

Timestamp Format: [dropdown]

Timestamp Time Zone Format: [dropdown]

Cancel

Next >

klik na next

Create an Application



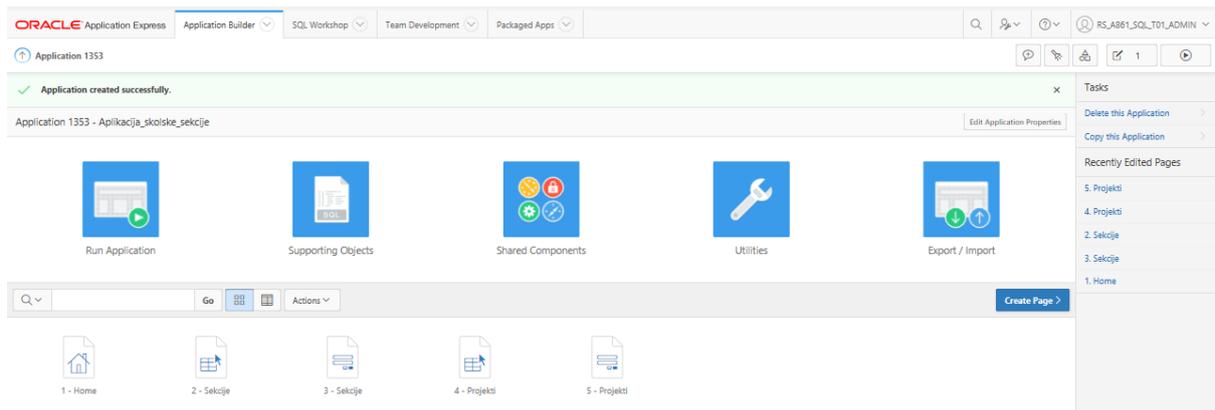
You have requested to create an application with the following attributes. Please confirm your selections.

Application	1353
Name	Aplikacija_skolske_sekcije
Parsing Schema	RS_A861_SQL_T01_ADMIN
Default Language	en
Navigation	Navigation Menu List
Default Authentication Scheme	No Authentication
Theme Type	Standard
Theme	Universal Theme
Subscribe Theme	No

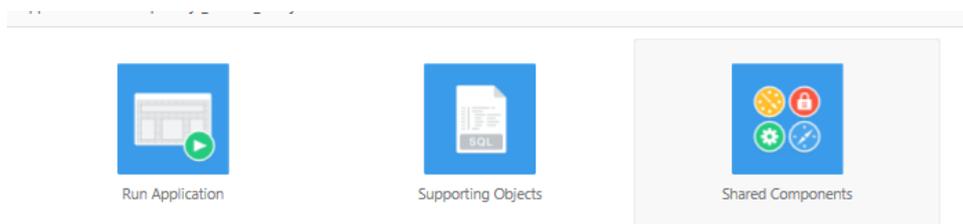
Cancel

Create Application

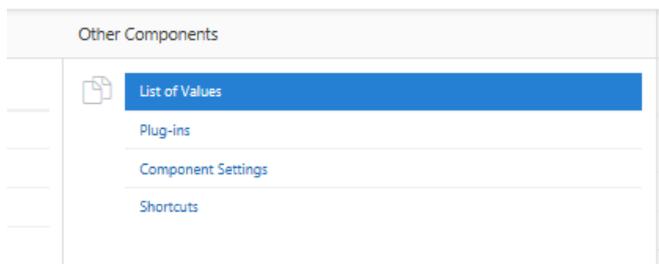
klik na Create Application



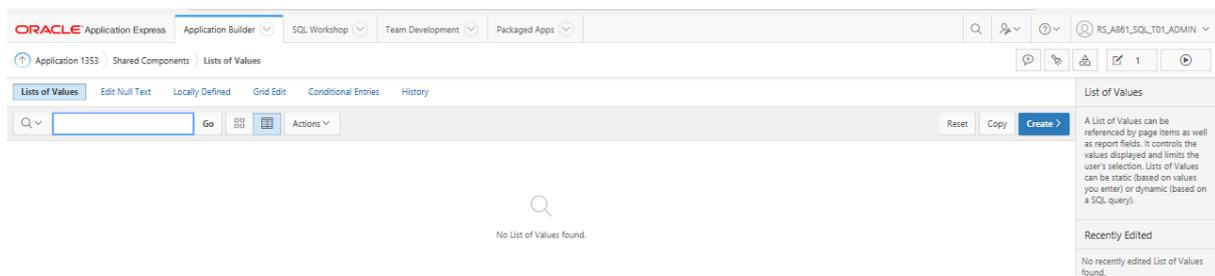
Sada je potrebno dodati listu sa spiskom sekcija radi lakšeg popunjavanja stranog ključa u tabeli projekti.



klik na Shared Components



klik na List of Values (kartica Other Components)



klik na Create

Create List of Values

Source

A List of Values is a static or dynamic definition used to display a specific type of page item, such as popup lists of values, a select list, a check box, a radio group, or multiple select lists.

Create List of Values: From Scratch ?
 As a Copy of an Existing List of Values

Cancel Next >

klik na next

Create List of Values

Name and Type

Static lists are based on predefined pairs of display and return values. Dynamic lists are based on a SQL query you write that selects values from a table.

Name: ?

Type: Static ?
 Dynamic

< Cancel Next >

ovde se definiše da će SEKCIJE_LOV biti dinamička lista i da će se stalno popunjavati iz tabele SEKCIJE

klik na next

Create List of Values

Query or Static Values

Enter a SQL query that returns two columns. The first column is the display value. The display value is the value you see in a list of values. This column should be aliased and a different name than the return column. The second column is the return value. The return value is the value returned when the display value is selected. The return column should be aliased if it includes any operations. Use bind variable syntax within your SQL query to reference the session state of the application or page items.

List of Values Name: ?

Query (SELECT DISPLAY_VALUE, RETURN_VALUE FROM.):

```
select ename as d,
empno as r
from emp
order by 1;
```

[Create Dynamic List of Values](#)

> **Examples**

< Cancel Create List of Values

sada se upit izmeni na sledeći način:

```
select naziv d,  
       id_sekcije r  
from sekcije  
order by 1
```

klik na Create List of Values

Application 1353 > Shared Components > Lists of Values

Dynamic List of Values created.

Lists of Values | Edit Null Text | Locally Defined | Grid Edit | Conditional Entries | Subscription | Utilization | History

Q | Go | Actions

Name	Type	Updated	Entry Count	Subscribed From	Subscribers
SEKCUE_LOV	Dynamic	5 seconds ago	0		

1 - 1

klik na Application broj_aplikacije u gornjem levom uglu

Application 1353

Application 1353 - Aplikacija_skolske_sekcije | Edit Application Properties

Run Application | Supporting Objects | Shared Components | Utilities | Export / Import

Q | Go | Actions | Create Page

1 - Home | 2 - Sekcije | 3 - Sekcije | 4 - Projekti | 5 - Projekti

1 - 5

Sada treba obezbediti da gde postoji strani ključ (forma 5 – Projekti), postoji unos iz upravo kreirane dinamičke liste

klik na 5 – Projekti stranicu

ORACLE Application Express Application Builder SQL Workshop Team Development Packaged Apps

Application 1353 Page Designer

Grid Layout Messages Page Search Help

Rendering

Page 5: Projekti

- Pre-Rendering
- Regions
 - Breadcrumb Bar
 - Breadcrumbs
 - Attributes
 - Content Body
 - Edit PROJEKTI
 - Attributes
 - Items
 - P5_ID_PROJEKTA
 - P5_NAZIV
 - P5_PROFESOR
 - P5_ID_SEKCIJE
 - Region Buttons
 - CANCEL
 - DELETE
 - SAVE
 - CREATE
 - Post-Rendering

Projekti

PAGE HEADER

PAGE NAVIGATION

BREADCRUMB BAR

Breadcrumbs

ITEMS

REGION CONTENT

SUB REGIONS

PREVIOUS CLOSE DELETE HELP CHANGE EDIT COPY CREATE NEXT

CONTENT BODY

Edit PROJEKTI

COPY EDIT PREVIOUS NEXT

ITEMS

P5_NAZIV

P5_PROFESOR

Regions Items Buttons

Breadcrumb Calendar Chart Classic Report Classic Report (based on Function) Help Text

Interactive Report Legacy Calendar List Map Chart PL/SQL Dynamic Region Display

Page

Identification

Name Projekti

Page Alias

Title Projekti

Page Group - Select -

Appearance

User Interface Desktop

Page Mode Normal

Page Template Theme Default

Template Options Use Template Defaults

CSS Classes

Media Type

Navigation Menu

Override User Interface Level Yes No

Navigation

Cursor Focus Do not focus cursor

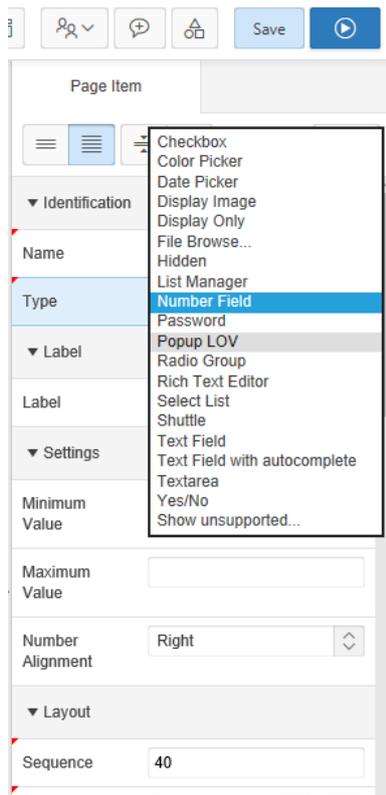
JavaScript

File URLs

klik na polje za unos stranog ključa, P5_ID_SEKCIJE

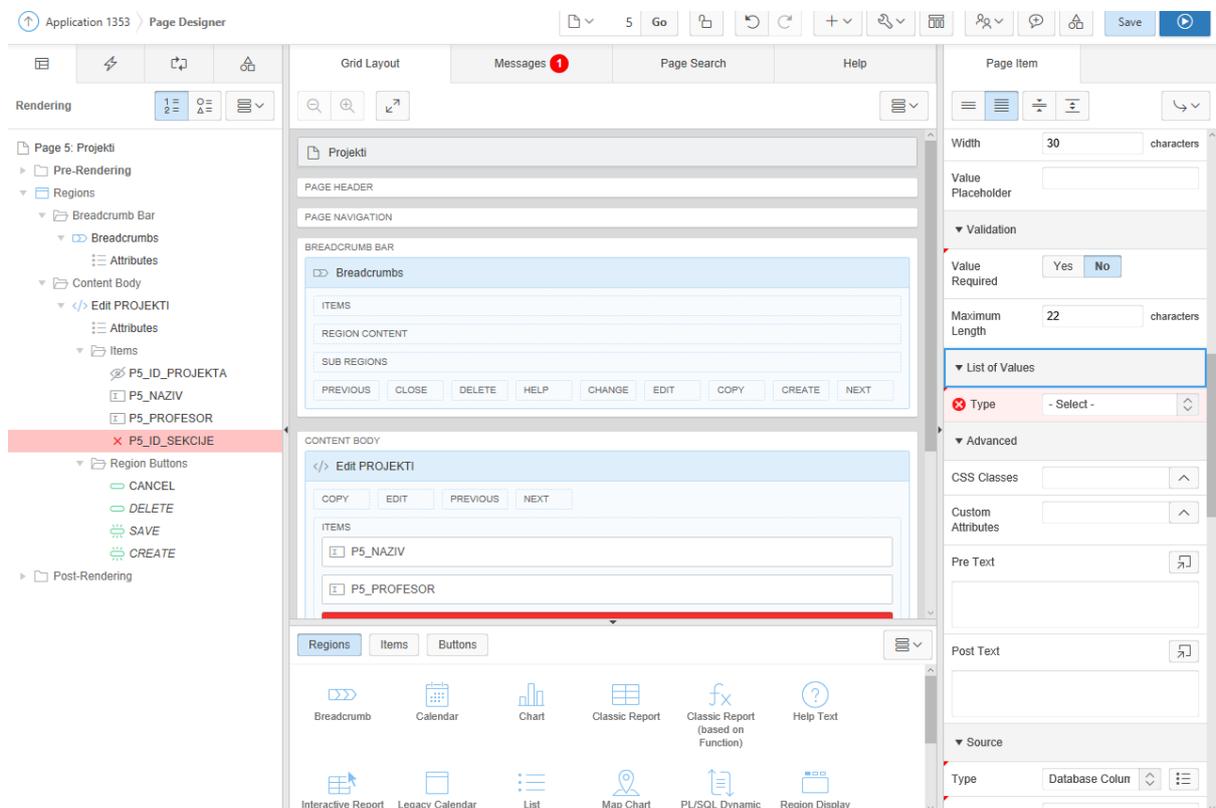
Page 5: Projekti

- Pre-Rendering
- Regions
 - Breadcrumb Bar
 - Breadcrumbs
 - Attributes
 - Content Body
 - Edit PROJEKTI
 - Attributes
 - Items
 - P5_ID_PROJEKTA
 - P5_NAZIV
 - P5_PROFESOR
 - P5_ID_SEKCIJE
 - Region Buttons
 - CANCEL
 - DELETE
 - SAVE
 - CREATE
 - Post-Rendering



kod Page Item sa desne strane izabrati na Type, Popup LOV

a zatim pronaći List of Values (donji deo desnog spiska)



na Type izabrati Shared Component

a za List of Values (sledeća stavka ispod) izabrati SEKCIJE_LOV

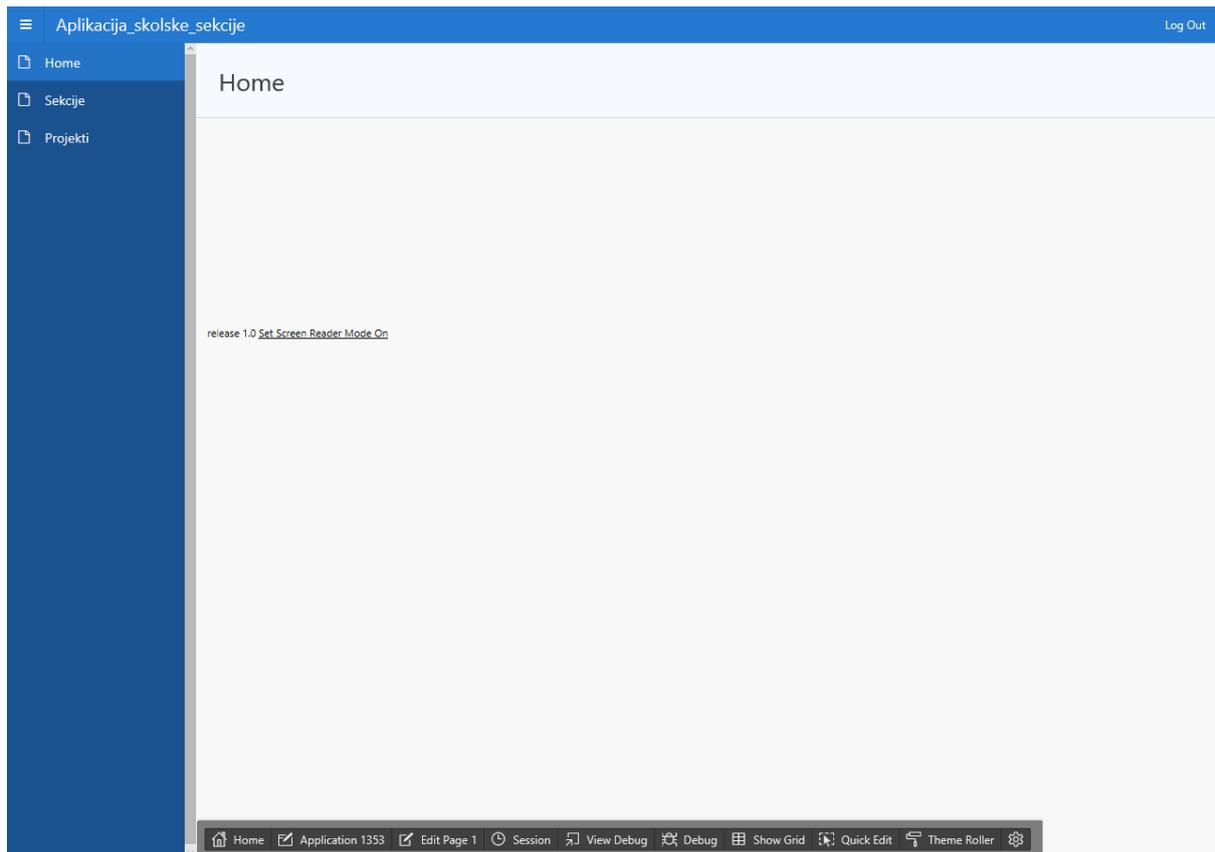
The screenshot displays the Oracle APEX Page Designer interface. The main workspace shows a page layout for 'Projekti' with a breadcrumb bar and a content body containing 'Edit PROJEKTI' and two input fields for 'P5_NAZIV' and 'P5_PROFESOR'. The left sidebar shows a tree view with 'P5_ID_SEKCIJE' selected. The right sidebar shows the 'Page Item' properties for 'SEKCIJE_LOV', including validation and list of values settings. The top toolbar includes 'Save' and 'Run' buttons.

klik na Save u gornjem desnom uglu ekrana

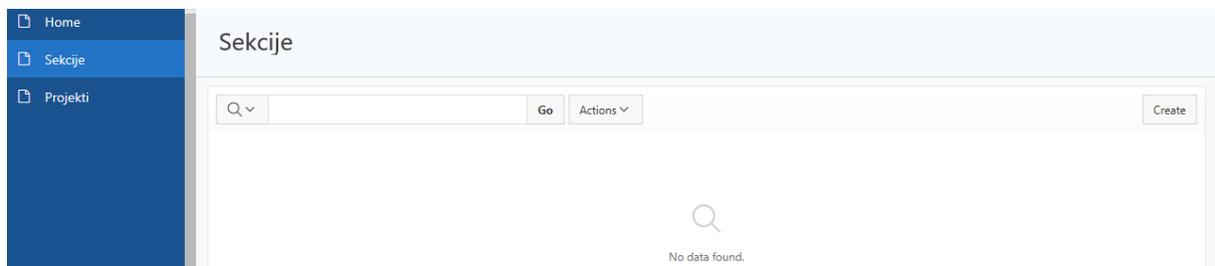
vratiti se na Application broj_aplikacije

The screenshot shows the Oracle APEX Application Home page. The title is 'Application 1353 - Aplikacija_skolske_sekcije'. There are three main buttons: 'Run Application', 'Supporting Objects', and 'Shared Components'. Below these is a search bar and a 'Go' button. At the bottom, there are four navigation links: '1 - Home', '2 - Sekcije', '3 - Sekcije', and '4 - Projekt'.

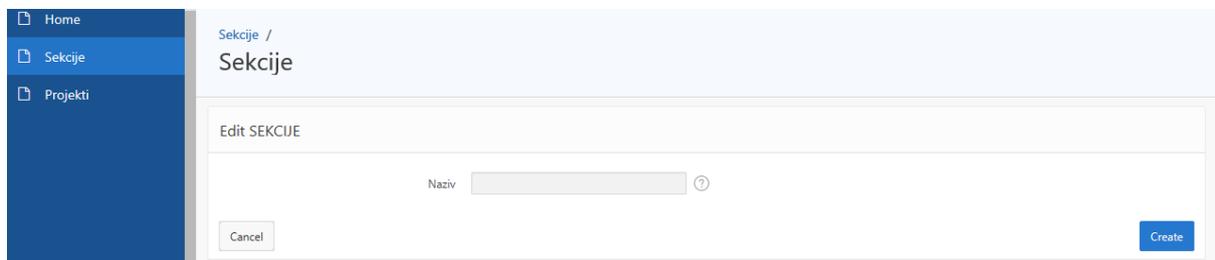
klik na Run Application

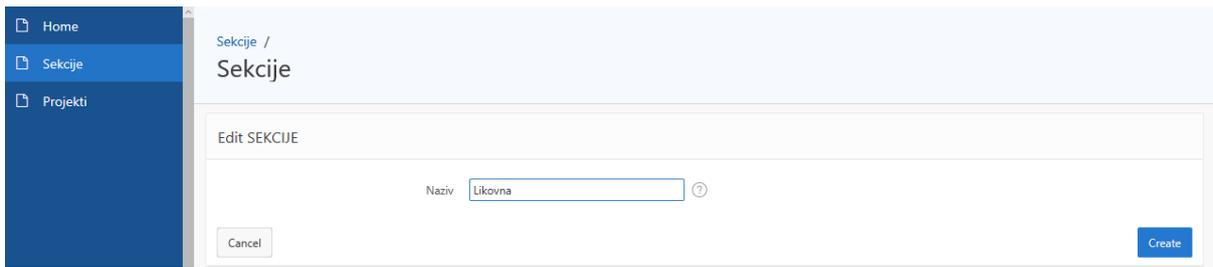


Ovo je početna stranica na kojoj se nalaze linkovi prema dve stranice, Sekcije i Projekti
klik na link Sekcije

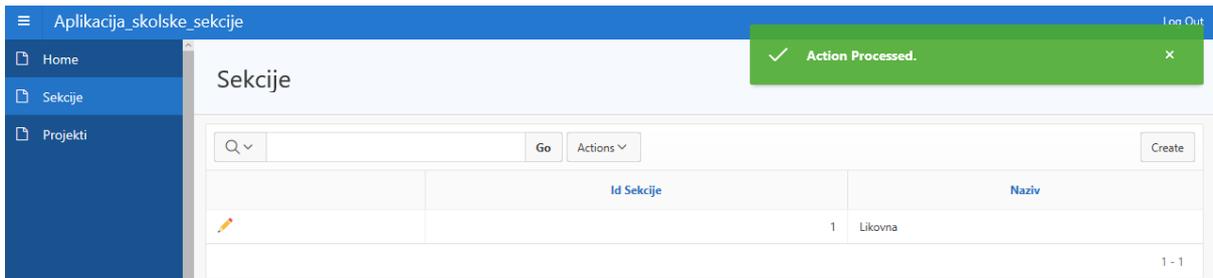


klik na Create

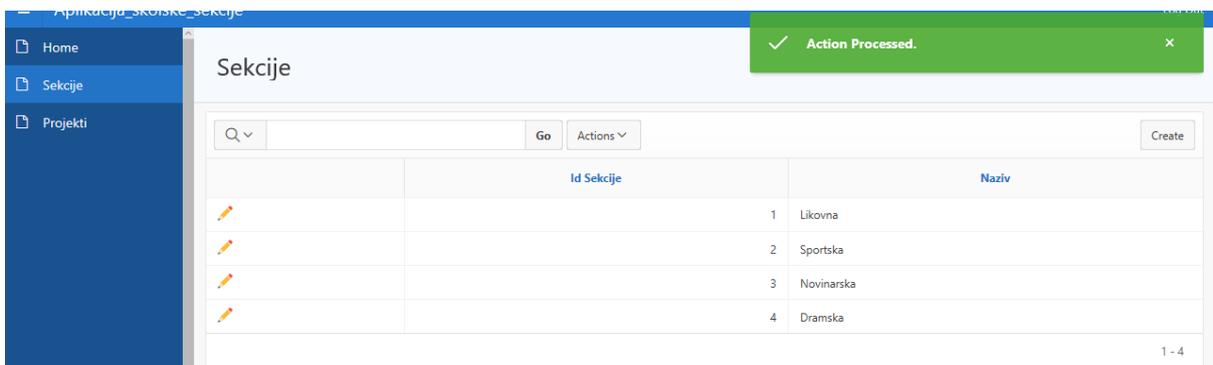




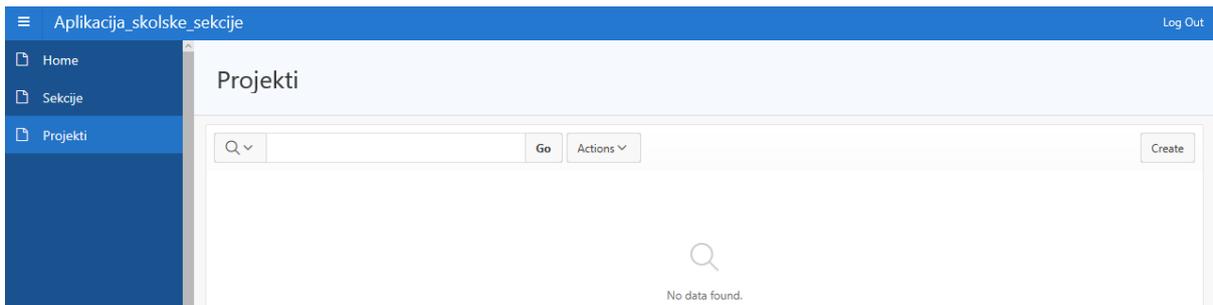
klik na Create



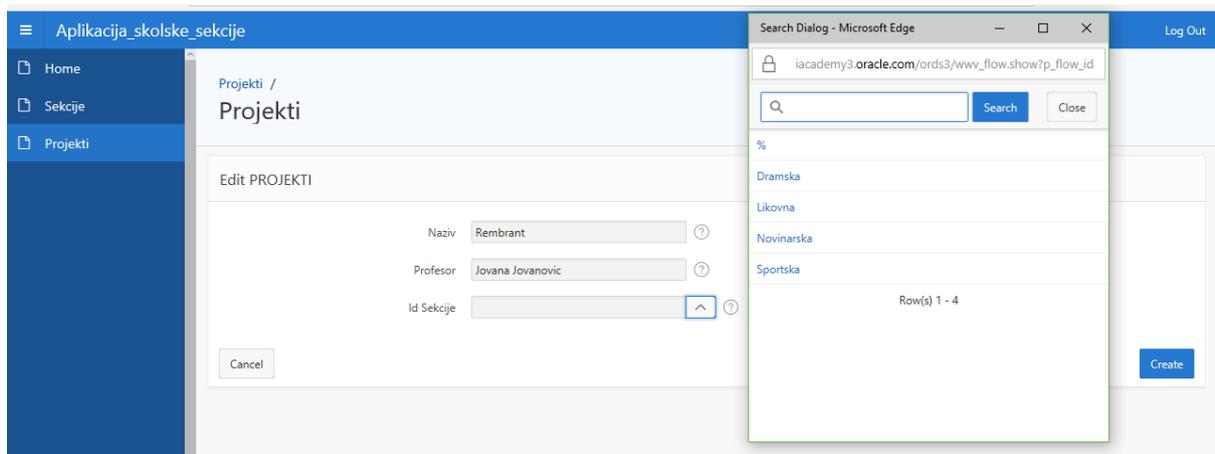
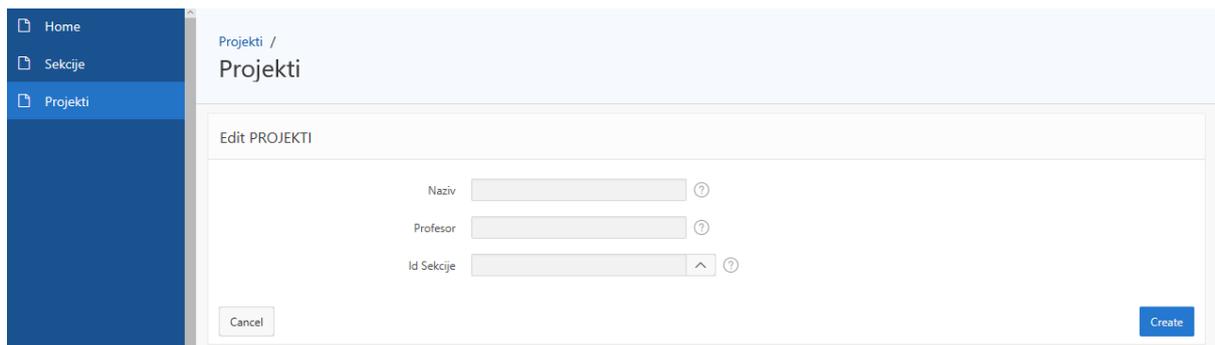
ponoviti postupak i dodati nazive sledeće tri sekcije, pa se dobija:



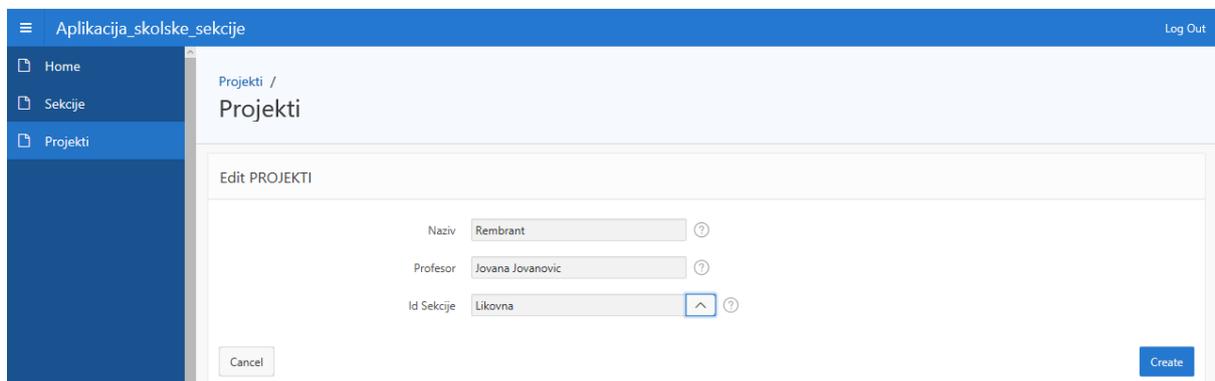
klik na Projekti



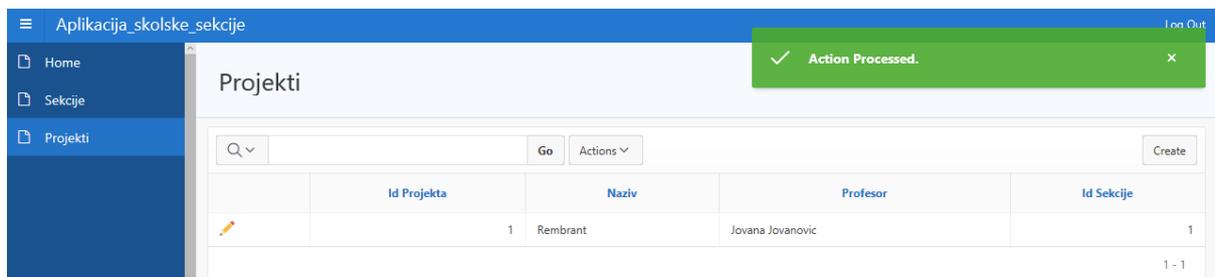
klik na Create



vidi se da se pri izboru id Sekcije pojavljuje padajući meni na posebnom prozoru
sa njega se izabere željene sekcija, sada je to Likovna:



klik na Create



sada uneti i preostale projekte

Aplikacija_skolske_sekcije Log Out

Home
Sekcije
Projekti

✓ Action Processed. ✕

Projekti

Go Actions Create

	Id Projekta	Naziv	Profesor	Id Sekcije
	1	Rembrandt	Jovana Jovanovic	1
	2	Dali	Biljana Jovic	1
	3	Putopisi	Anja Mistic	3
	4	Rubens	Jovana Jovanovic	1
	5	Pikaso	Jovana Jovanovic	1
	6	Veb-novinarstvo	Anja Mistic	3

1 - 6

release 1.0 [Set Screen Reader Mode On](#)

Home Application 1353 Edit Page 4 Session View Debug Debug Show Grid Quick Edit Theme Roller

14:46 SRP 08/10/2017

klik na Home na dnu ekrana

Application Builder SQL Workshop Team Development Packaged Apps

About
Application Express is a rapid Web application development tool that lets you share data and create applications. Using only a Web browser and limited programming experience, you can develop and deploy applications that are fast and secure.

Top Applications	Top Users	News and Messages
<p>AP Aplikacija_skolske_sekcije 41</p>	<p>RS rs_a861_sq_t01_admin 23</p>	

Dashboard

1 Applications 2 Tables

0 Features 0 Packaged Apps

Available Updates

Patch Set 5.0.4.00.12 is available [\[More Information\]](#)
Oracle APEX 5.1.3 is available [\[More Information\]](#)

Accessibility Mode
Standard

Klik na SQL Workshop a zatim na SQL Commands

ORACLE Application Express Application Builder SQL Workshop Team Development Packaged Apps

SQL Commands Schema RS_A861_SQL_T01_ADMIN

Rows 10 Clear Command Find Tables Save Run

Results Explain Describe Saved SQL History

Enter SQL statement or PL/SQL command and click Run to see the results.

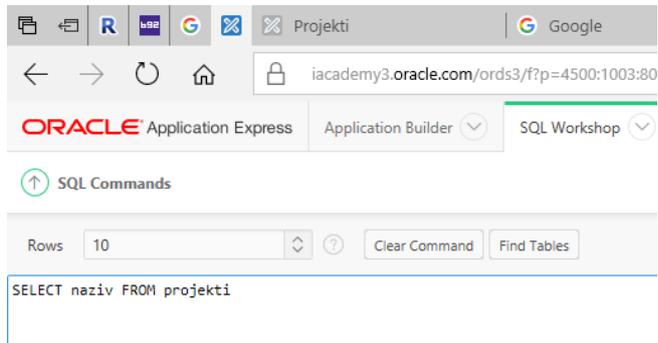
rs_a861_sql_t01_admin rs_a861_sql_t01 en Copyright © 1999, 2015, Oracle. All rights reserved. Application Express 5.0.3.00.03

potrebno je napisati SQL upite koje vraćaju sledeće informacije iz baze podataka:

- 1) spisak svih projekata
Rembrandt, Dali, Pikaso, Putopisi, Veb-novinarstvo, Rubens
- 2) spisak svih projekata novinarske sekcije
Putopisi, Veb-novinarstvo
- 3) spisak svih projekata kojima je mentor Jovana Jovanović i čiji naziv počinje na R
Rembrandt, Rubens
- 4) Broj projekata svake sekcije
Likovna 4, Novinarska 2, Sportska 0, Dramska 0

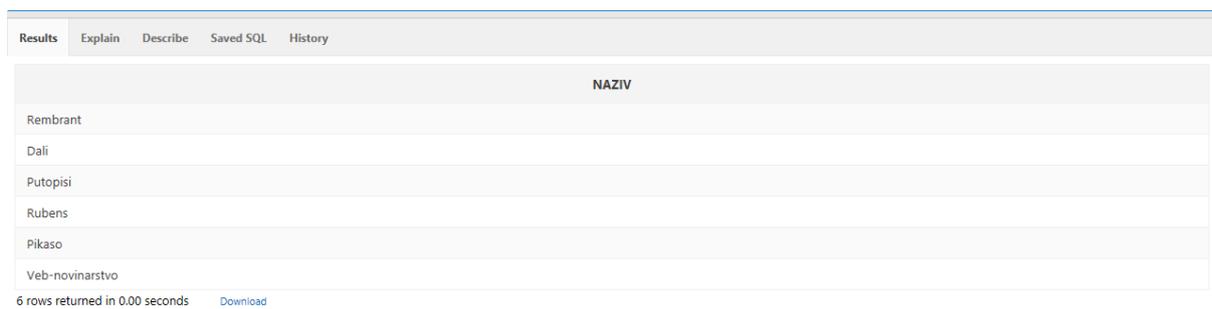
1) uneti sledeći sql upit:

```
SELECT naziv FROM projekti
```



The screenshot shows the Oracle SQL Workshop interface. The browser address bar displays 'iacademy3.oracle.com/ords3/f?p=4500:1003:80'. The page title is 'ORACLE Application Express'. Below the navigation bar, there is a 'SQL Commands' section with a 'Rows' dropdown set to '10', 'Clear Command', and 'Find Tables' buttons. The SQL editor contains the query: `SELECT naziv FROM projekti`.

klik na Run

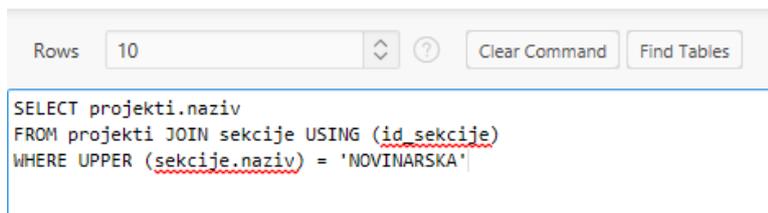


The screenshot shows the results of the SQL query. The 'Results' tab is active, displaying a table with the column 'NAZIV'. The table contains six rows: Rembrandt, Dali, Putopisi, Rubens, Pikaso, and Veb-novinarstvo. Below the table, it indicates '6 rows returned in 0.00 seconds' and provides a 'Download' link.

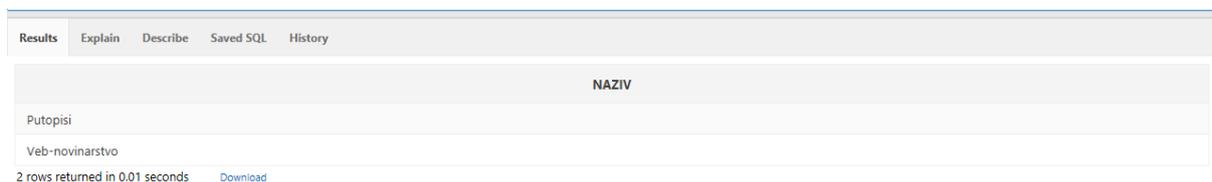
NAZIV
Rembrandt
Dali
Putopisi
Rubens
Pikaso
Veb-novinarstvo

2) uneti sledeći sql upit:

```
SELECT projekti.naziv  
FROM projekti JOIN sekcije USING (id_sekcije)  
WHERE UPPER (sekcije.naziv) = 'NOVINARSKA'
```



The screenshot shows the Oracle SQL Workshop interface with the SQL editor containing the query: `SELECT projekti.naziv FROM projekti JOIN sekcije USING (id_sekcije) WHERE UPPER (sekcije.naziv) = 'NOVINARSKA'`. The 'Rows' dropdown is set to '10'.



The screenshot shows the results of the SQL query. The 'Results' tab is active, displaying a table with the column 'NAZIV'. The table contains two rows: Putopisi and Veb-novinarstvo. Below the table, it indicates '2 rows returned in 0.01 seconds' and provides a 'Download' link.

NAZIV
Putopisi
Veb-novinarstvo

3) uneti sledeći sql upit:

```
SELECT naziv  
FROM projekti  
WHERE profesor = 'Jovana Jovanovic' AND naziv LIKE 'R%'
```

Rows

```
SELECT naziv
FROM projekti
WHERE profesor = 'Jovana Jovanovic' AND naziv LIKE 'R%'
```

Results Explain Describe Saved SQL History

Rembrant
Rubens

2 rows returned in 0.01 seconds [Download](#)

4) uneti sledeći sql upit:

```
SELECT sekcije.naziv, COUNT (id_projekta)
FROM projekti JOIN sekcije USING (id_sekcije)
GROUP BY sekcije.naziv
ORDER BY sekcije.naziv
```

Rows

```
SELECT sekcije.naziv, COUNT (id_projekta)
FROM projekti JOIN sekcije USING (id_sekcije)
GROUP BY sekcije.naziv
ORDER BY sekcije.naziv
```

Results Explain Describe Saved SQL History

NAZIV	COUNT(ID_PROJEKTA)
Likovna	4
Novinarska	2

2 rows returned in 0.01 seconds [Download](#)

5) uneti sledeći sql upit:

```
SELECT sekcije.naziv, COUNT (id_projekta) "Broj projekata"  
FROM projekti RIGHT OUTER JOIN sekcije USING (id_sekcije)  
GROUP BY sekcije.naziv  
ORDER BY "Broj projekata" DESC
```

ORACLE Application Express Application Builder SQL Worksho

SQL Commands

Rows 10 Clear Command Find Tables

```
SELECT sekcije.naziv, COUNT (id_projekta) "Broj projekata"  
FROM projekti RIGHT OUTER JOIN sekcije USING (id_sekcije)  
GROUP BY sekcije.naziv  
ORDER BY "Broj projekata" DESC
```

Results	Explain	Describe	Saved SQL	History
NAZIV		Broj projekata		
Likovna	4			
Novinarska	2			
Sportska	0			
Dramska	0			

4 rows returned in 0.01 seconds [Download](#)