

Fakultet tehničkih nauka, DRA, Novi Sad

Predmet:

# Sistemi skladišta podataka

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# Rad u učionici ITC L3

- Windows:
  - User name: EMxxG2011 ili Exxxxx (xxxxx je broj indeksa)
  - Password: ftn
- Studenti koriste sledeće:
  - Bazu podataka orcl11
  - Bazu podataka orcl11wh

# Rad u učionici ITC L3

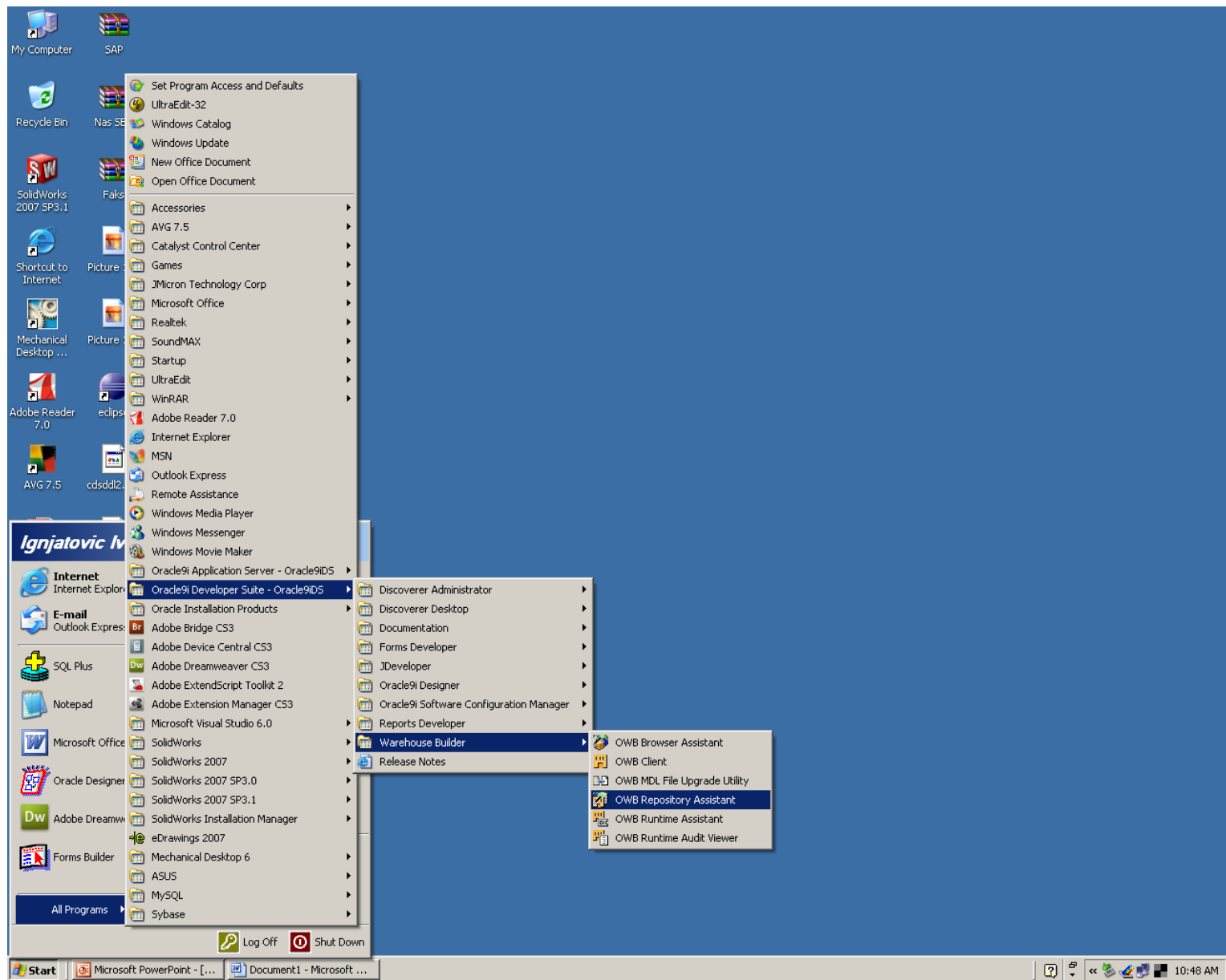
- Baza podataka orcl11:
  - Studentska korisnička šema (user schema) pod nazivom **Exxxxxx** (OLTP baza podataka)
    - User name: Exxxxx ili lxxxxx (xxxxx je broj indeksa)
    - Password: ftn
- Baza podataka orcl11wh:
  - Studentska korisnička šema (user schema) pod nazivom **ExxxxxxWH** (OWB repository)
    - User name: ExxxxxxWH ili lxxxxxxWH (xxxxxx je broj indeksa)
    - Password: ftn

# Rad u učionici ITC L3

- Podaci potrebni za konektovanje na baze podataka (orcl11 ili orcl11wh)
  - Host Name: 192.168.3.51
  - Port Number: 1521
  - Oracle SID, database name: orcl11 ili orcl11wh
- Administratorski nalog (biće dostupan samo na prvom času za kreiranje OWB repozitorijuma):
  - User name: sys
  - Password: sys2011

# Rad u učionici ITC L3

- Podaci potrebni za konektovanje na asistentsku bazu podataka (primer Studentske službe)
  - Host Name: 192.168.3.51
  - Port Number: 1521
  - Database name: orcl11
    - User name: asistent
    - Password: sofokle



Oracle Warehouse Builder Repository Assistant: Welcome

This wizard will guide you through the Installation of Oracle Warehouse Builder Repository:



Step 1: Choose Operation Create, Upgrade or Drop.

Step 2: Provide Hostname, Port Number and Oracle SID.

Step 3: User Type: New or Existing user.

Step 4: Give User Name and Password.

Step 5: Give Sys User Name and Password.

Step 6: Give Tablespace information.

Click Next to continue

☒ Show this page next time.

Cancel

Help

< Back

Next >

Oracle Warehouse Builder Repository Assistant: Choose Operation

Which operation would you like to perform ?

- ☒ Create a new Warehouse Builder Repository.
- ☐ Upgrade Repository objects.
- ☐ Drop Warehouse Builder Repository objects.

Click Next to continue.



Cancel

Help

< Back

Next >



Oracle Warehouse Builder Repository Assistant: Server Information

Enter the information about the Host Name, Port Number, and Oracle SID of the database where the Warehouse Builder Repository will be installed.

Host Name: 192.168.3.51

Port Number: 1521

Oracle SID: orcl11wh

Click Next to continue.

Cancel Help Back Next

Select one of the following choices.



☐ Create and install into a new user schema.

☒ Install into existing user Schema.

Click Next to continue.

Cancel

Help

< Back

Next >

Oracle Warehouse Builder Repository Assistant: User Name and Password

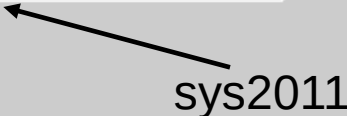
Enter the User Name and Password of a database user with SYSDBA privileges (typically SYS).

User Name:

Password:

Click Next to continue.

Cancel Help < Back Next >



Oracle Warehouse Builder Repository Assistant: User Name and Password

Enter existing User Name and Password for Repository schema.



User Name:

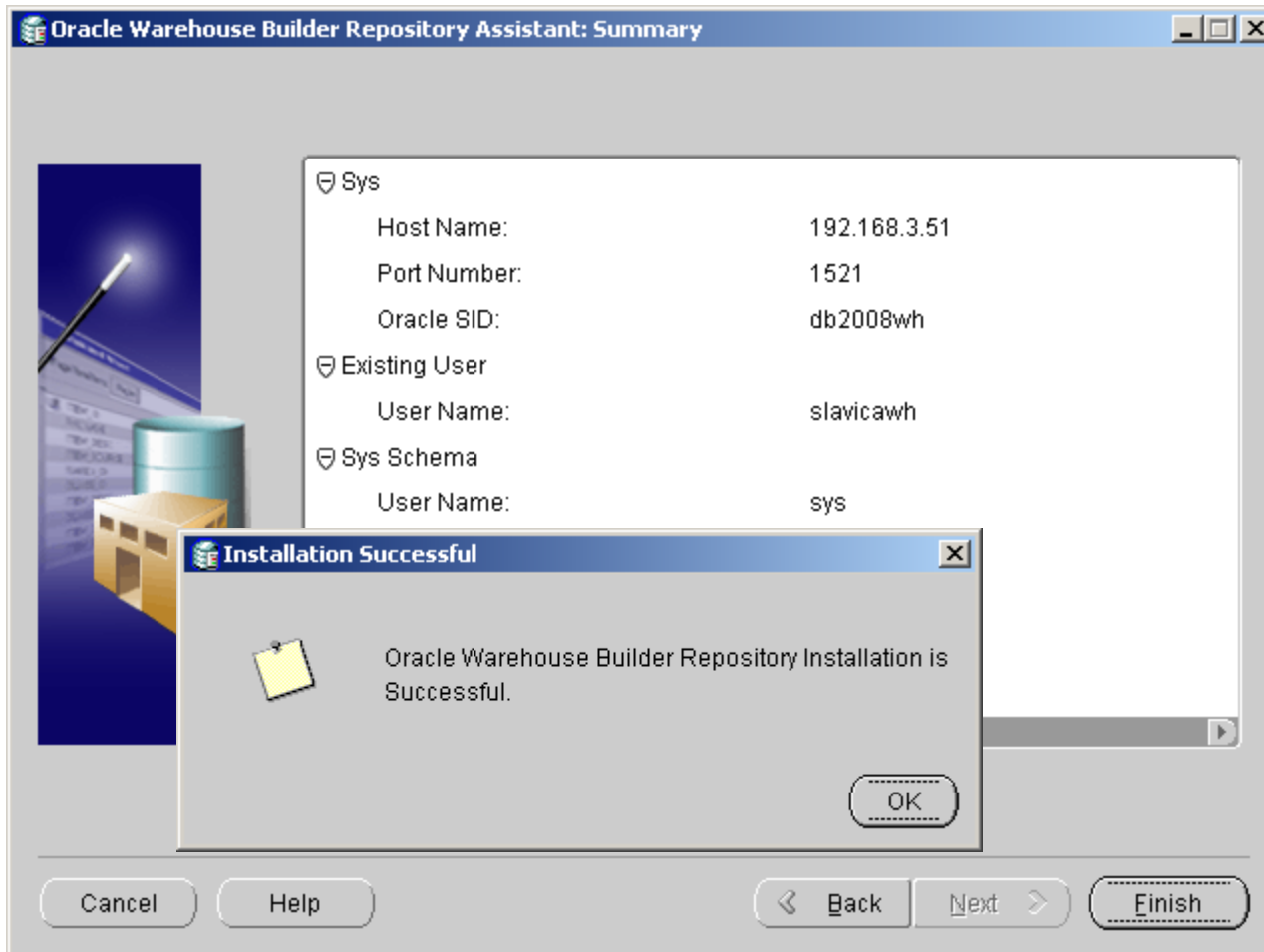
Broj indeksa

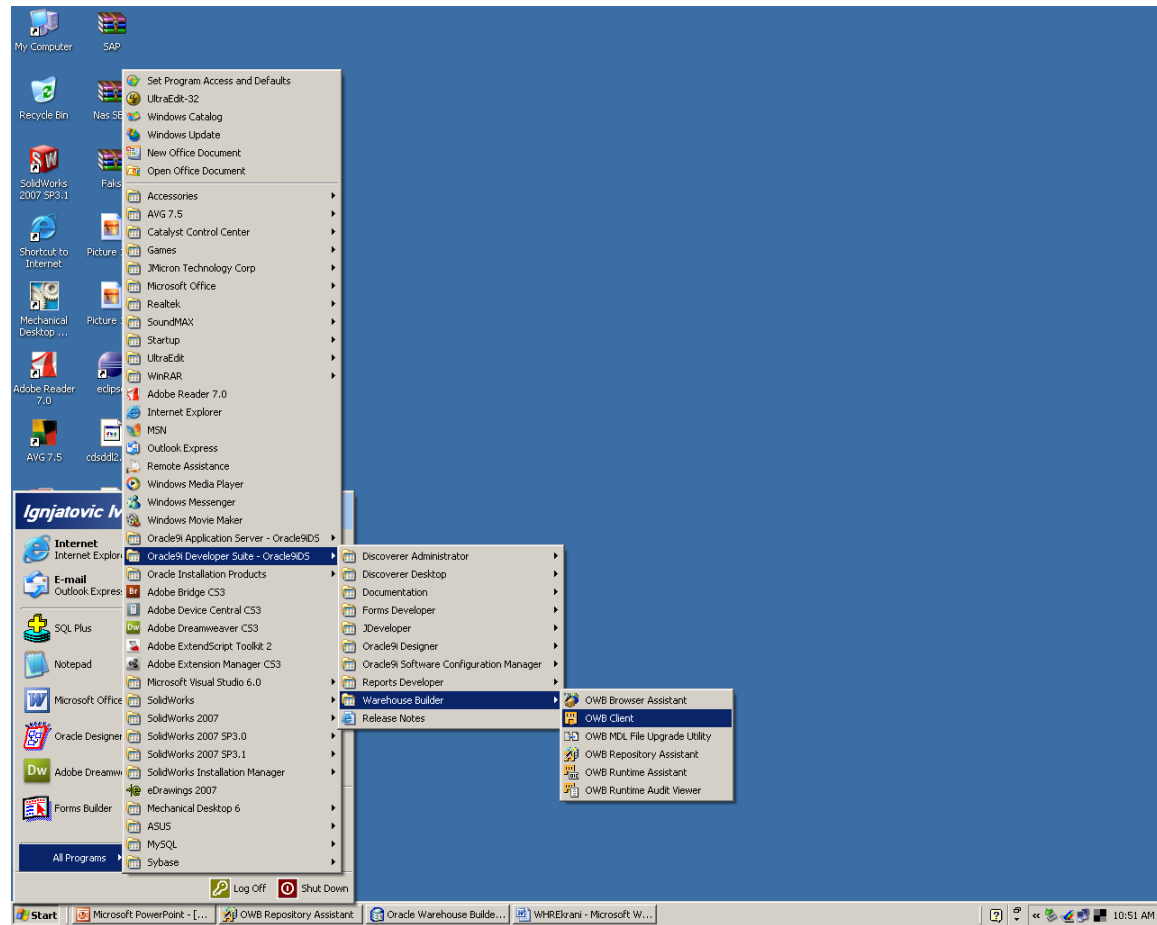
Password:

ftn

Click Next to continue.

Cancel Help < Back Next >





**Warehouse Builder Logon** [X]

User Name:

Password:

---

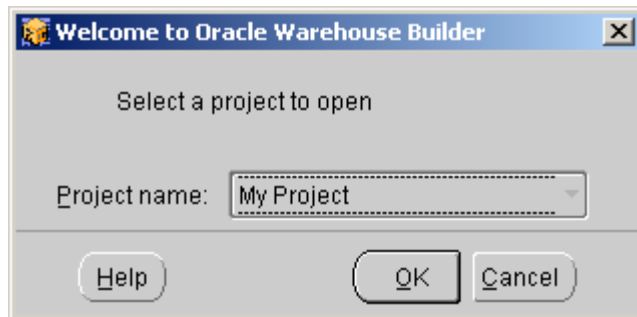
**Connect Information** [X]

Host Name:

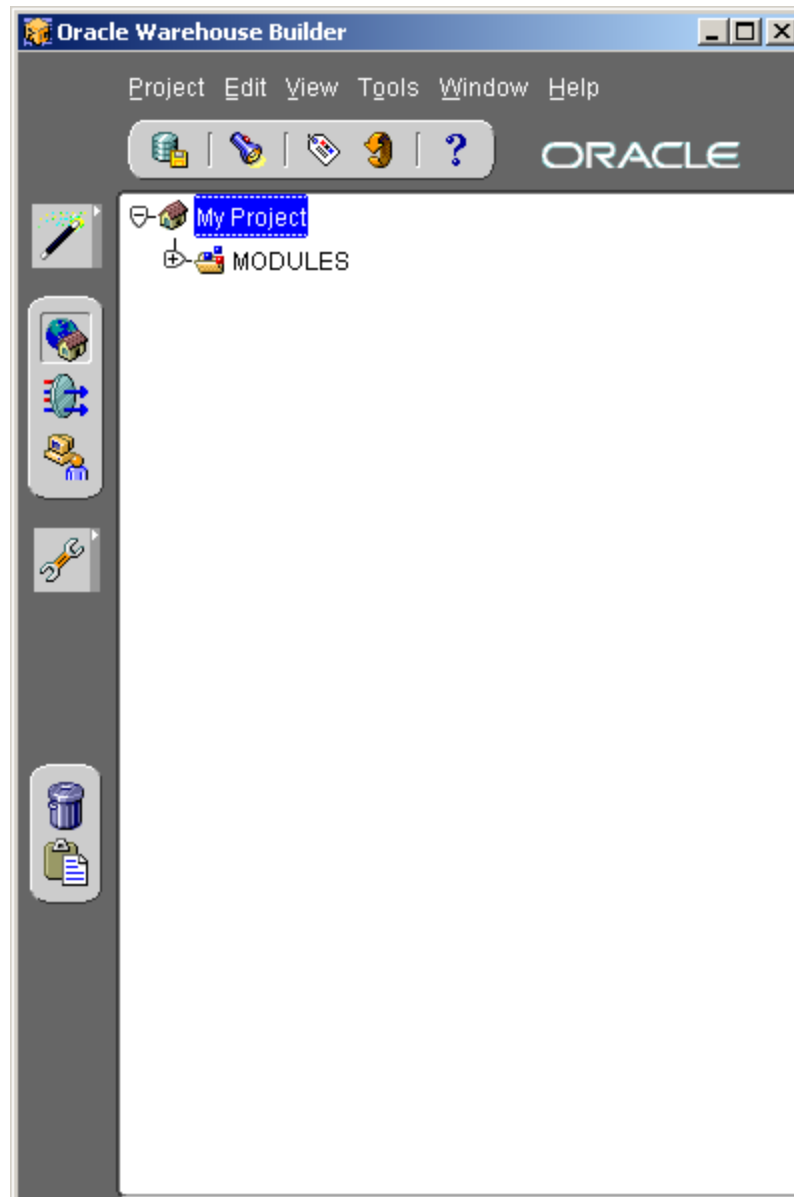
Port Number:

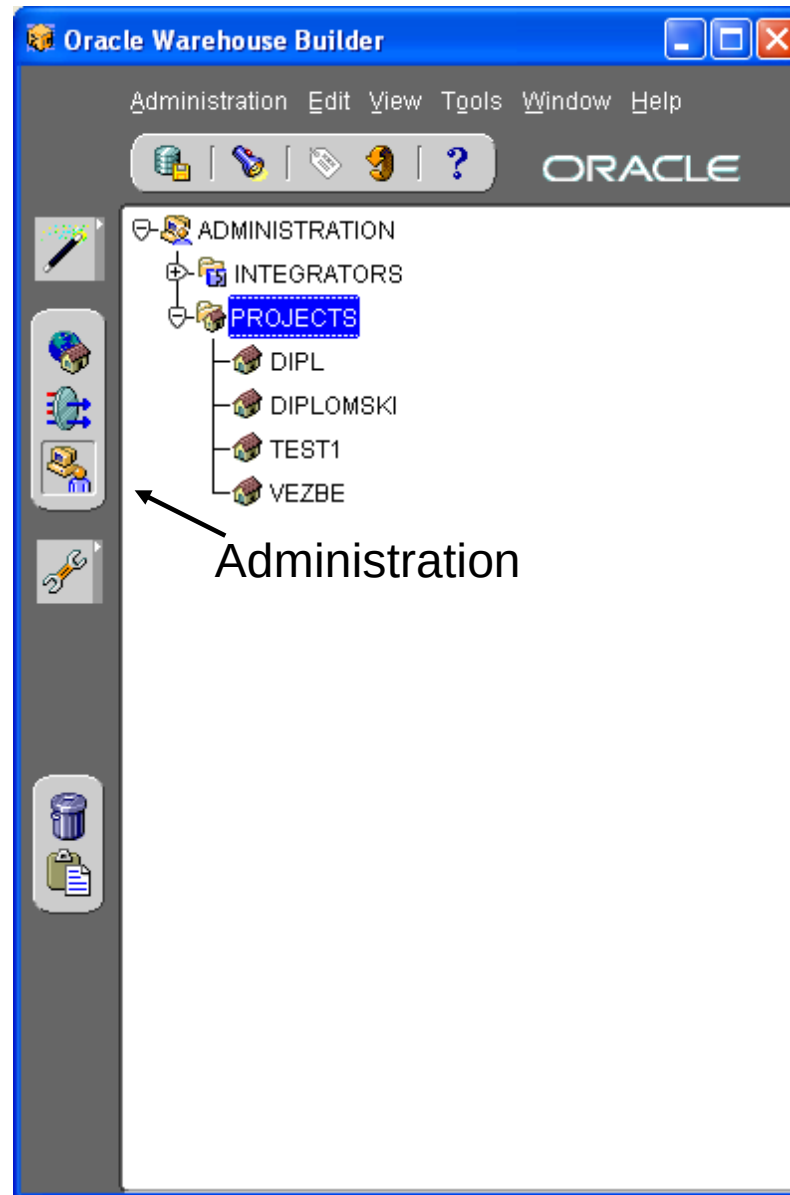
Oracle SID:

---

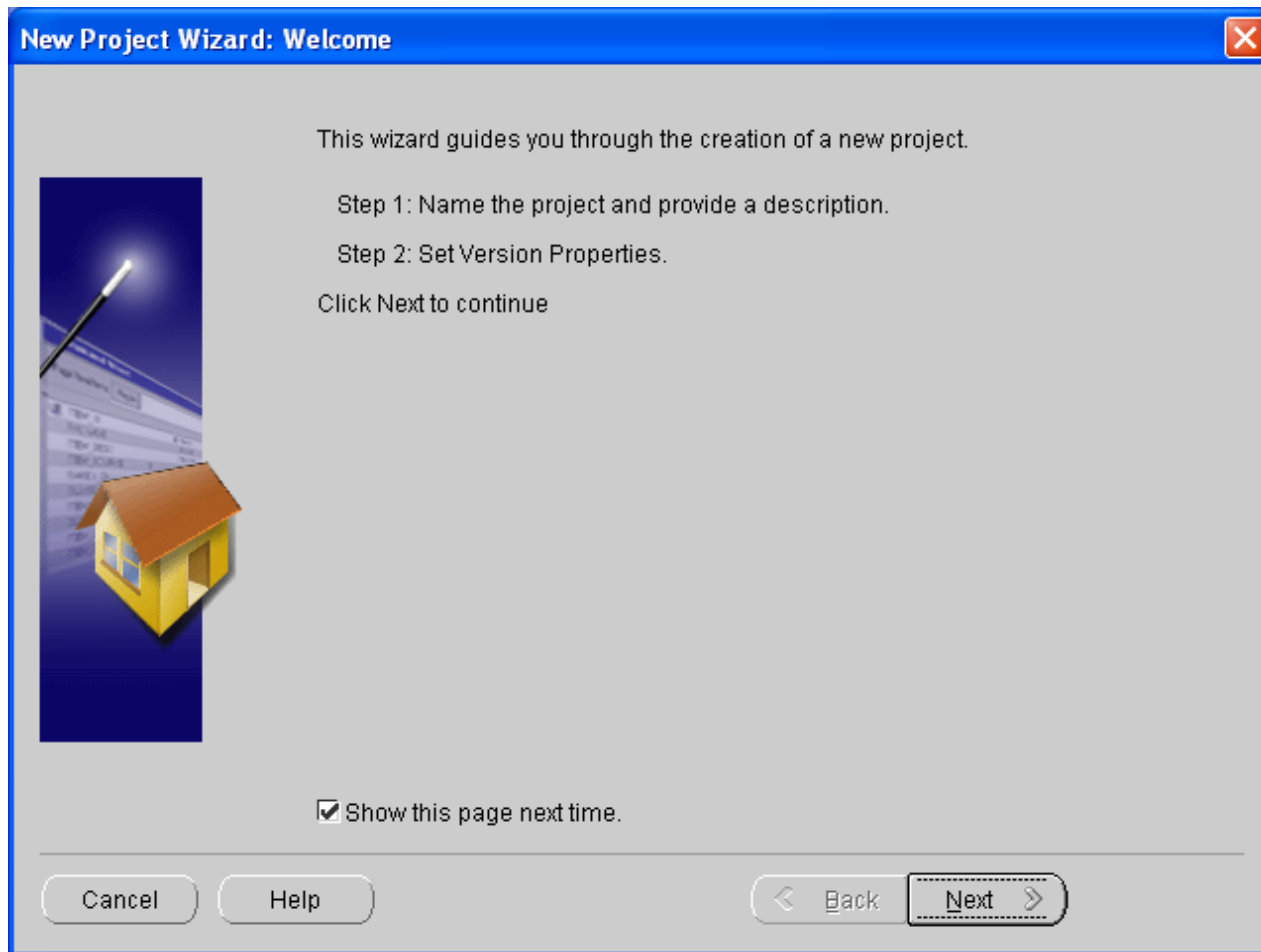








# Kreiranje novog projekta



# Kreiranje novog projekta

New Project Wizard: Name

Type in a name for the project:

WH\_Vezbe

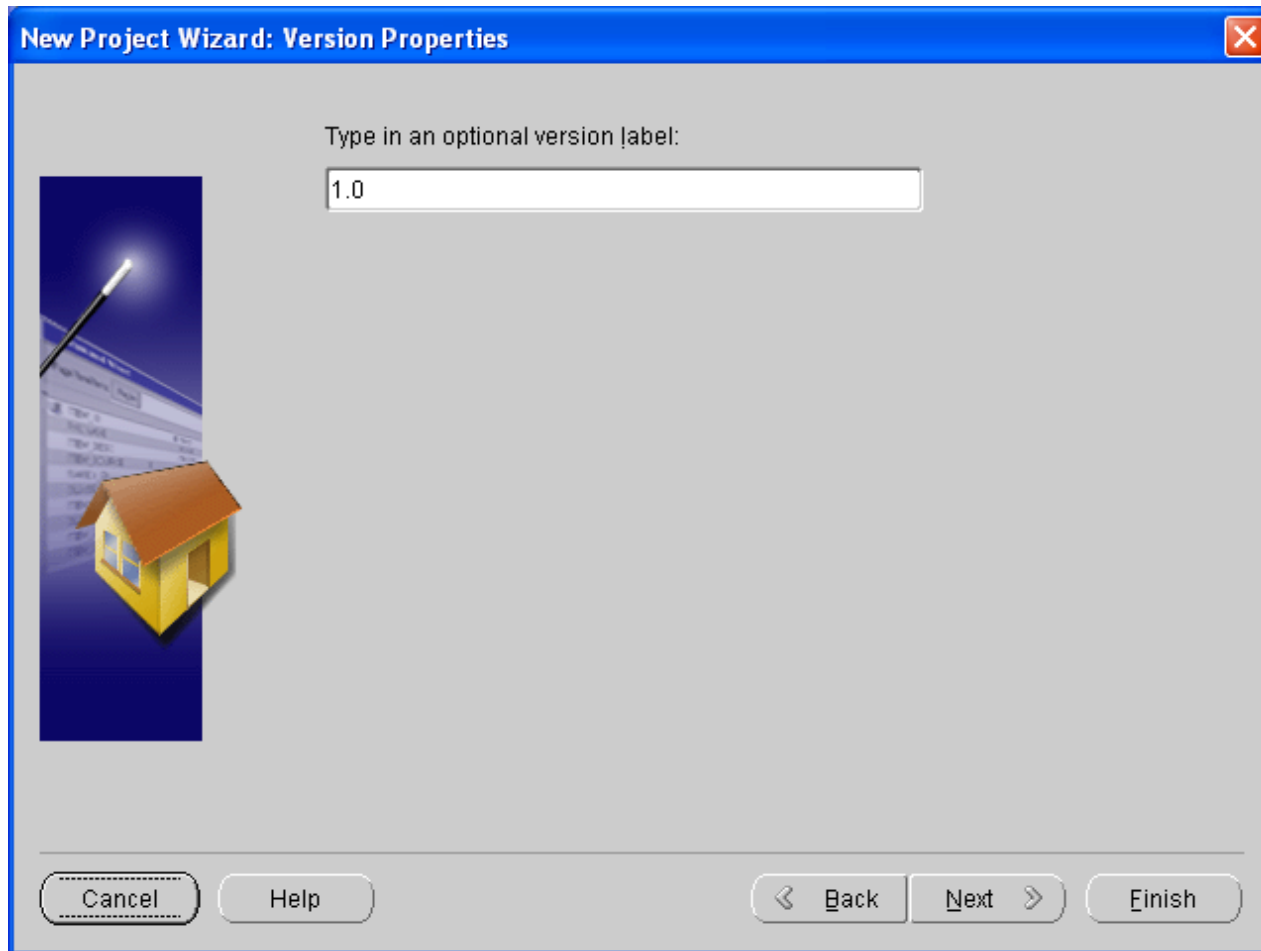
Type in an optional description:

Projekat za vezbe iz predmeta Sistemi skladišta podataka

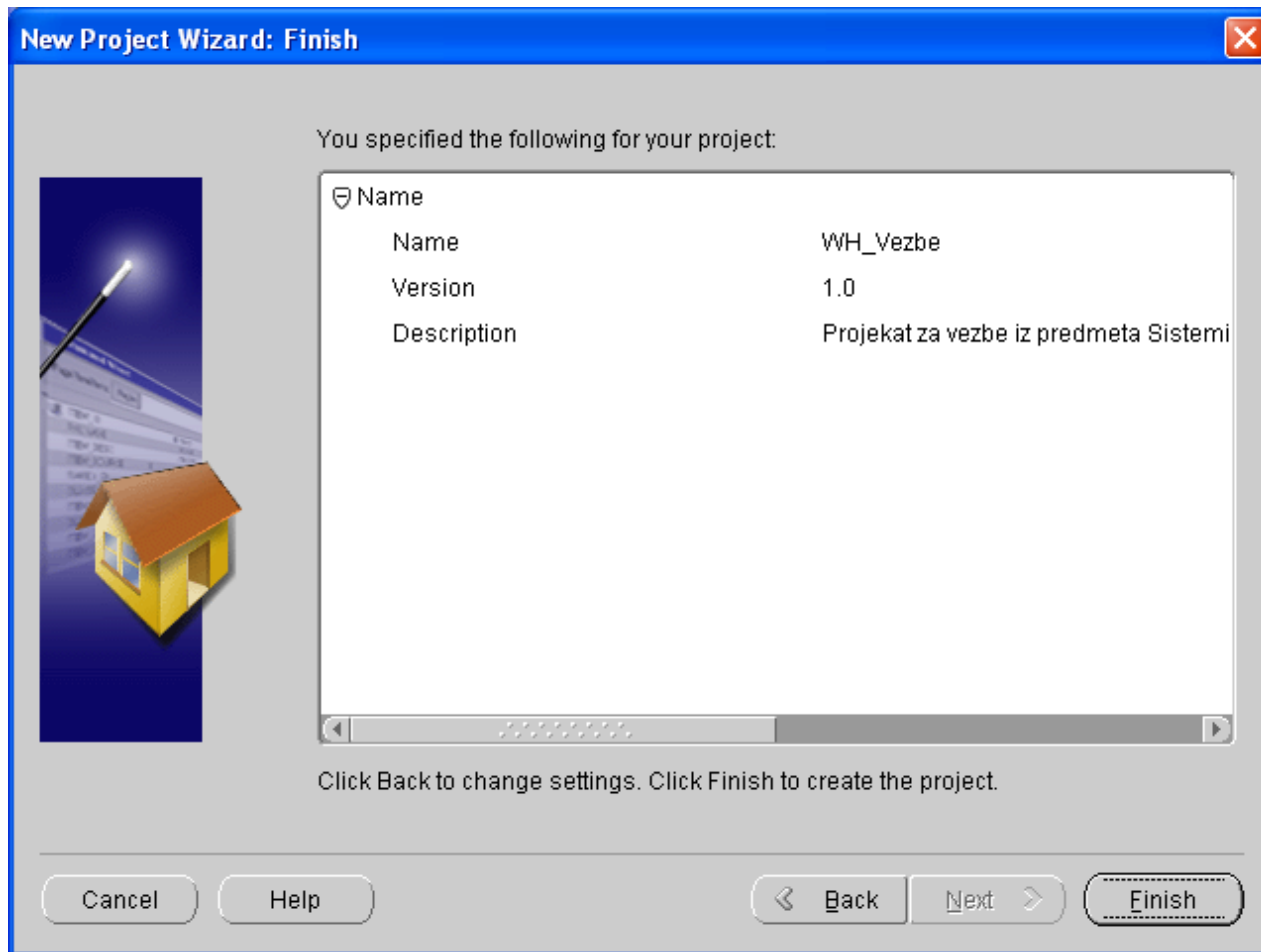
Cancel Help Back Next Finish

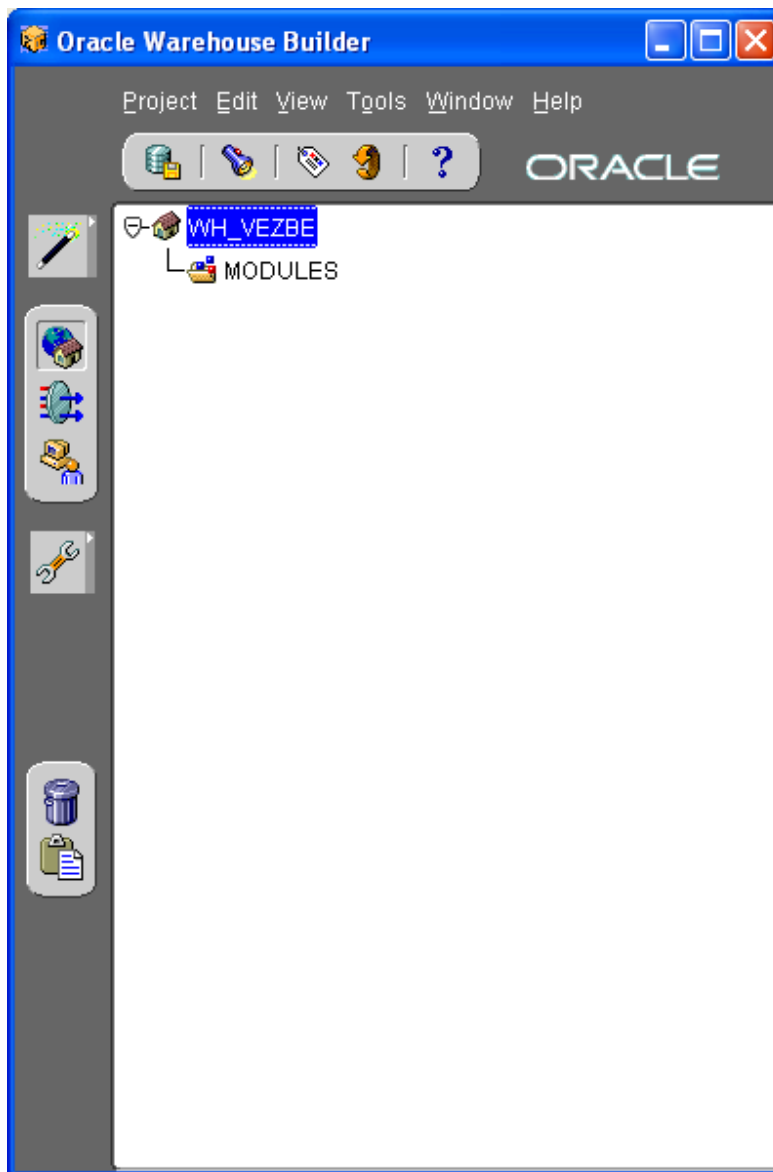
A vertical decorative panel on the left side of the dialog box. It features a dark blue background with a glowing white wand tip at the top and a small yellow house with a brown roof at the bottom. In the background, there is a faint, semi-transparent image of a computer screen displaying a table with columns like 'ITEM ID', 'ITEM NAME', and 'ITEM CODE'.

# Kreiranje novog projekta

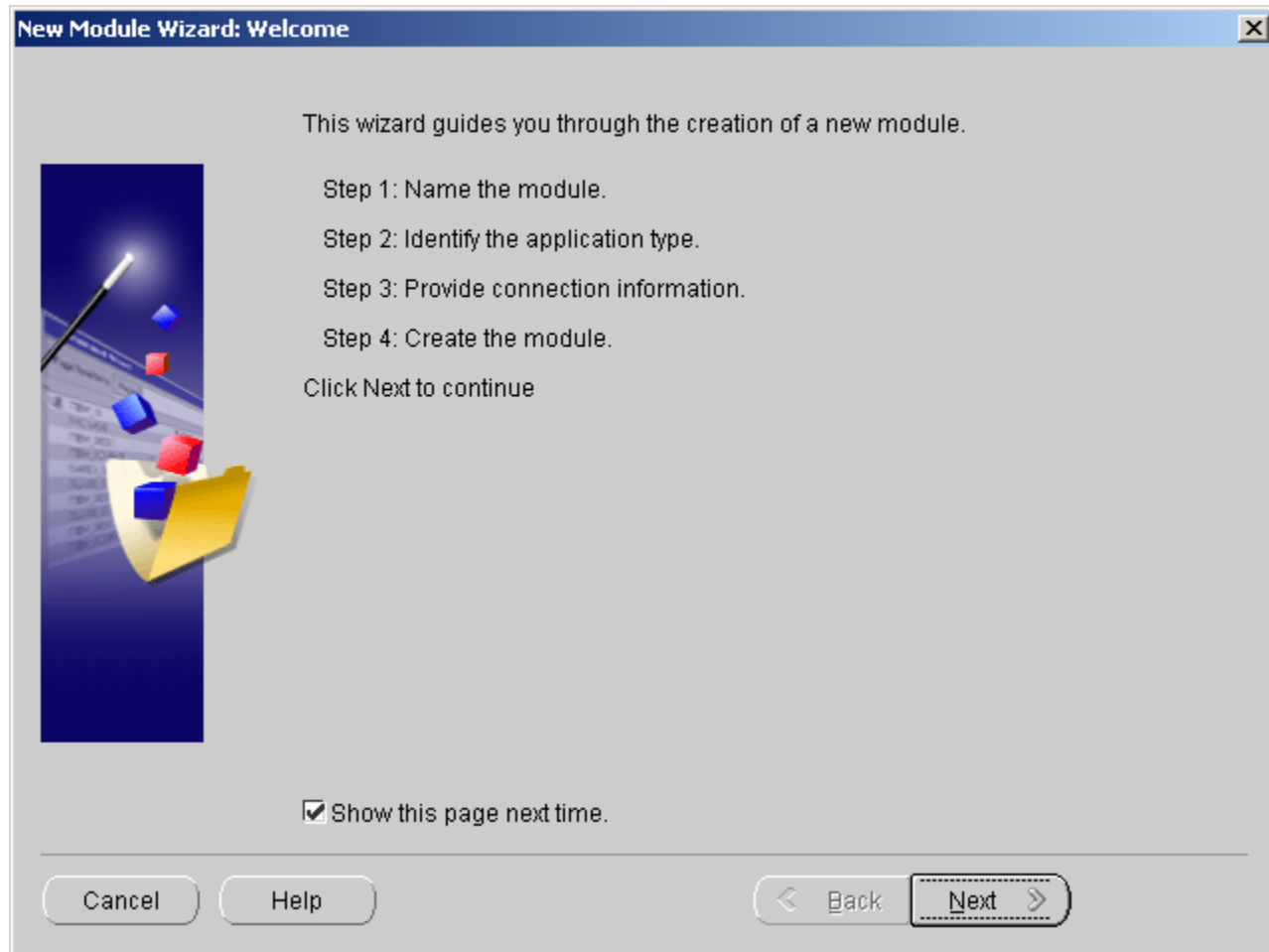


# Kreiranje novog projekta



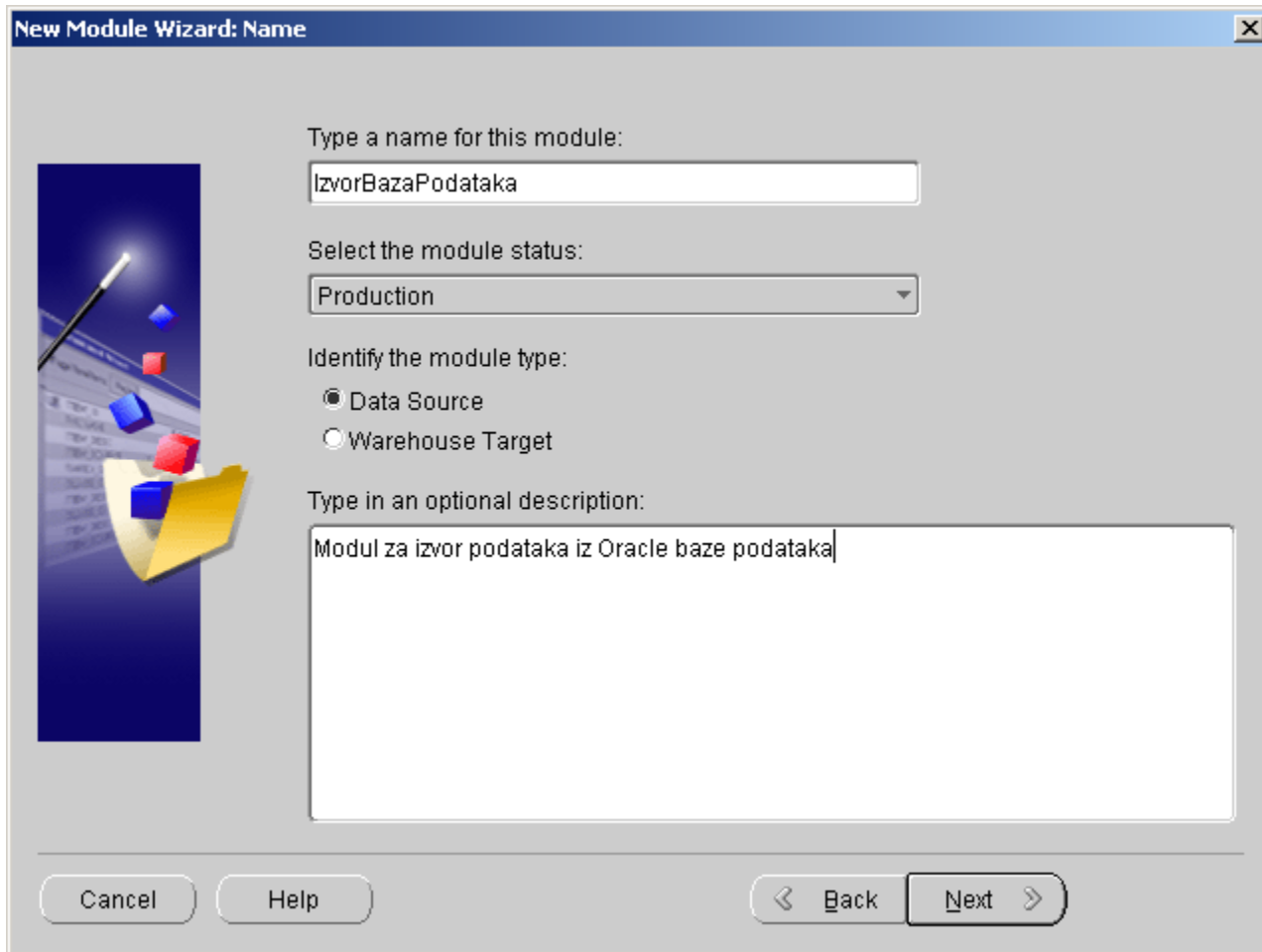


# Kreiranje modula-izvor Oracle baza podataka





# Kreiranje modula

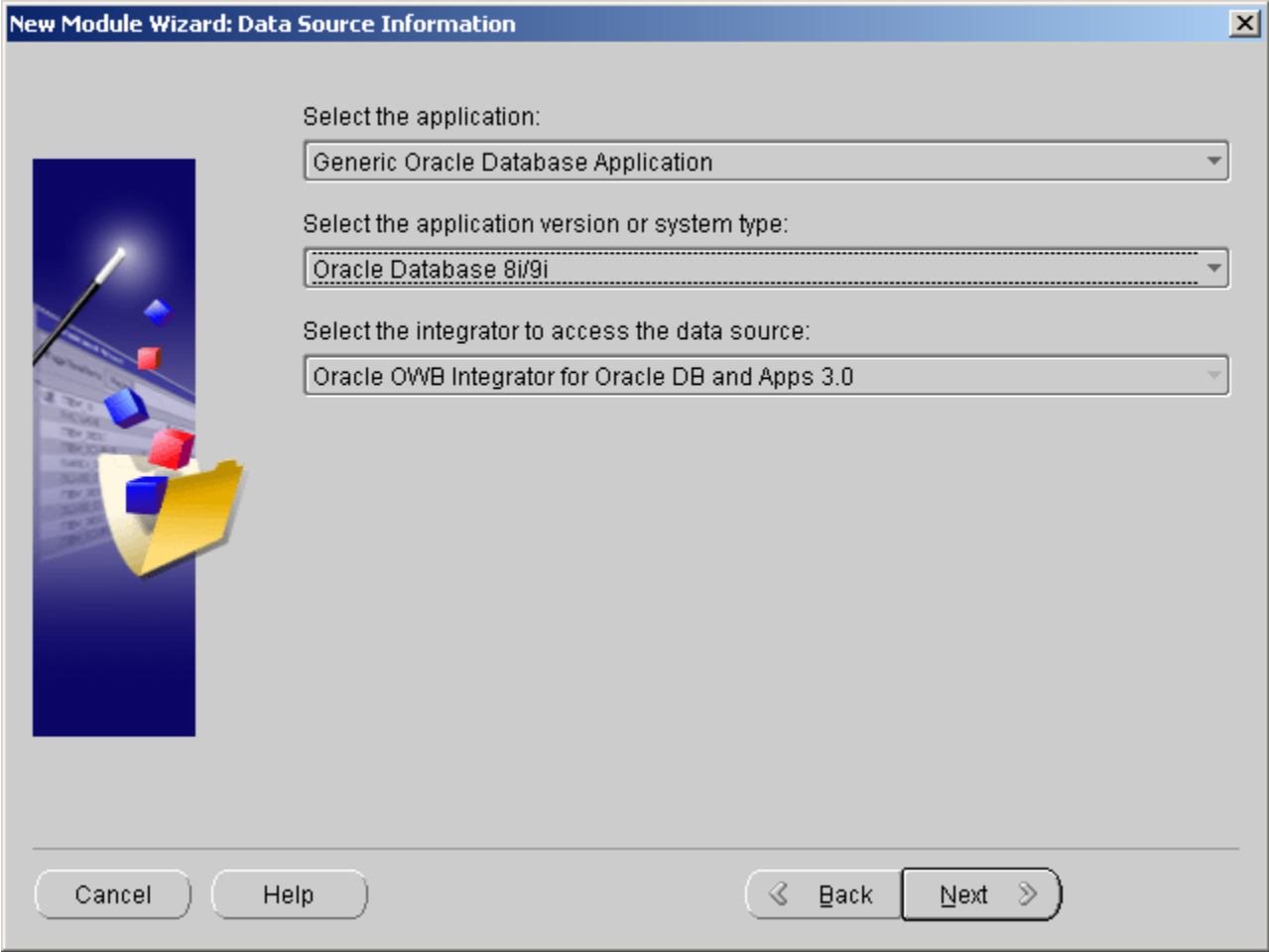


The image shows a 'New Module Wizard: Name' dialog box. On the left is a vertical decorative bar with a blue background, featuring a yellow 3D arrow pointing upwards and several small 3D cubes in blue, red, and yellow. The main area of the dialog is light gray and contains the following fields and controls:

- Type a name for this module:** A text input field containing 'IzvorBazaPodataka'.
- Select the module status:** A dropdown menu with 'Production' selected.
- Identify the module type:** Two radio buttons. The first is labeled 'Data Source' and is selected. The second is labeled 'Warehouse Target' and is unselected.
- Type in an optional description:** A large text area containing the text 'Modul za izvor podataka iz Oracle baze podataka'.

At the bottom of the dialog are four buttons: 'Cancel', 'Help', '< Back', and 'Next >'. The 'Back' and 'Next' buttons are part of a single button group.

# Kreiranje modula



The image shows a screenshot of a software wizard window titled "New Module Wizard: Data Source Information". The window has a blue title bar with a close button (X) in the top right corner. On the left side, there is a vertical decorative panel with a dark blue background, featuring a yellow 3D arrow pointing upwards and several small red and blue cubes floating around it. The main area of the window is light gray and contains three selection steps, each with a label and a dropdown menu:

- Select the application:** The dropdown menu shows "Generic Oracle Database Application".
- Select the application version or system type:** The dropdown menu shows "Oracle Database 8i/9i".
- Select the integrator to access the data source:** The dropdown menu shows "Oracle OWB Integrator for Oracle DB and Apps 3.0".

At the bottom of the window, there are four buttons: "Cancel", "Help", "< Back", and "Next >". The "Next >" button is highlighted with a darker border.

# Kreiranje modula

**New Module Wizard: Connection Information**

Select or create a database link to import metadata into the module. The database link physically exists in the Warehouse Builder repository schema and is only used for metadata retrieval.

Source for Metadata Import:

☒ Oracle Data Dictionary  
☐ Oracle Designer Repository

Please provide the connection information by selecting a database link and a schema.

Database link:

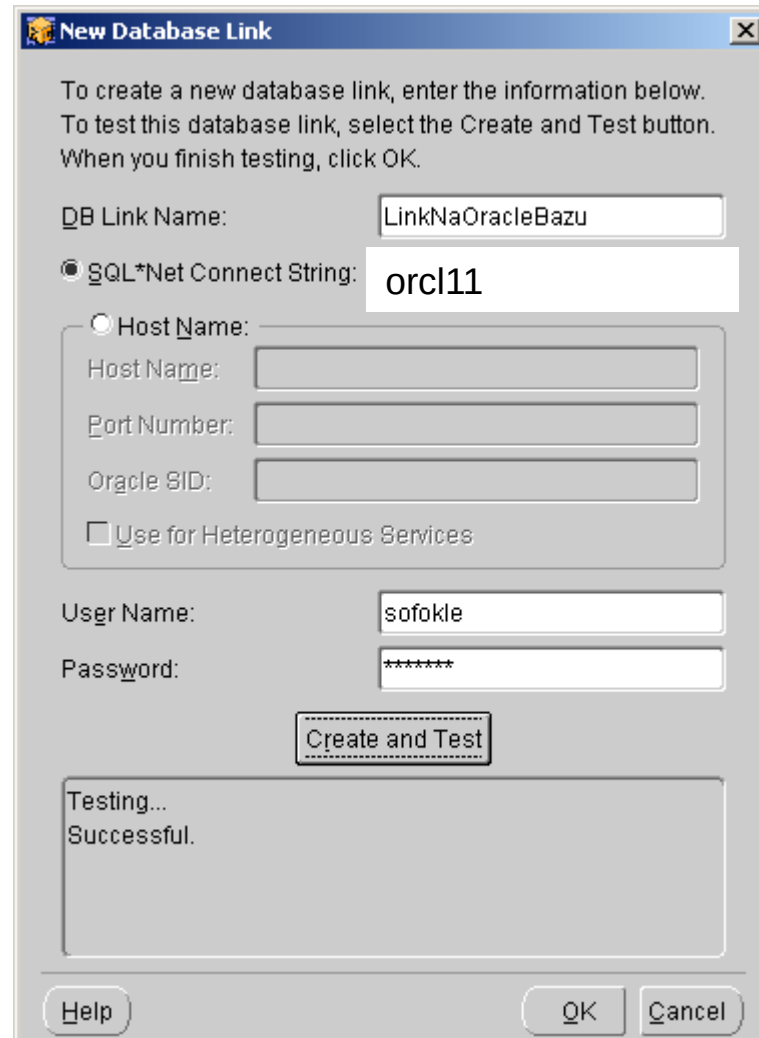
Owner:

User Name:

Connect String:

Schema:

# Kreiranje modula



The screenshot shows the 'New Database Link' dialog box. It contains instructions at the top, followed by input fields for 'DB Link Name' (filled with 'LinkNaOracleBazu'), 'SQL\*Net Connect String' (selected with radio button, filled with 'orcl11'), and a group box for 'Host Name' containing 'Host Name', 'Port Number', and 'Oracle SID' fields. There is also a checkbox for 'Use for Heterogeneous Services'. Below these are 'User Name' (filled with 'sofokle') and 'Password' (filled with asterisks) fields. A 'Create and Test' button is highlighted with a dashed border. At the bottom, a text area shows 'Testing...' followed by 'Successful.' on a new line. The bottom of the dialog has 'Help', 'OK', and 'Cancel' buttons.

**New Database Link**

To create a new database link, enter the information below.  
To test this database link, select the Create and Test button.  
When you finish testing, click OK.

DB Link Name:

☒ SQL\*Net Connect String:

☐ Host Name:

Host Name:

Port Number:

Oracle SID:

☐ Use for Heterogeneous Services

User Name:

Password:

**Create and Test**

Testing...  
Successful.

Help OK Cancel

# Kreiranje modula

**New Module Wizard: Connection Information**

Select or create a database link to import metadata into the module. The database link physically exists in the Warehouse Builder repository schema and is only used for metadata retrieval.

Source for Metadata Import:

☒ Oracle Data Dictionary  
☐ Oracle Designer Repository

Please provide the connection information by selecting a database link and a schema.

Database link:

Owner:

User Name:

Connect String:

Schema:

# Kreiranje modula

New Module Wizard: Finish

Summary of the module information:

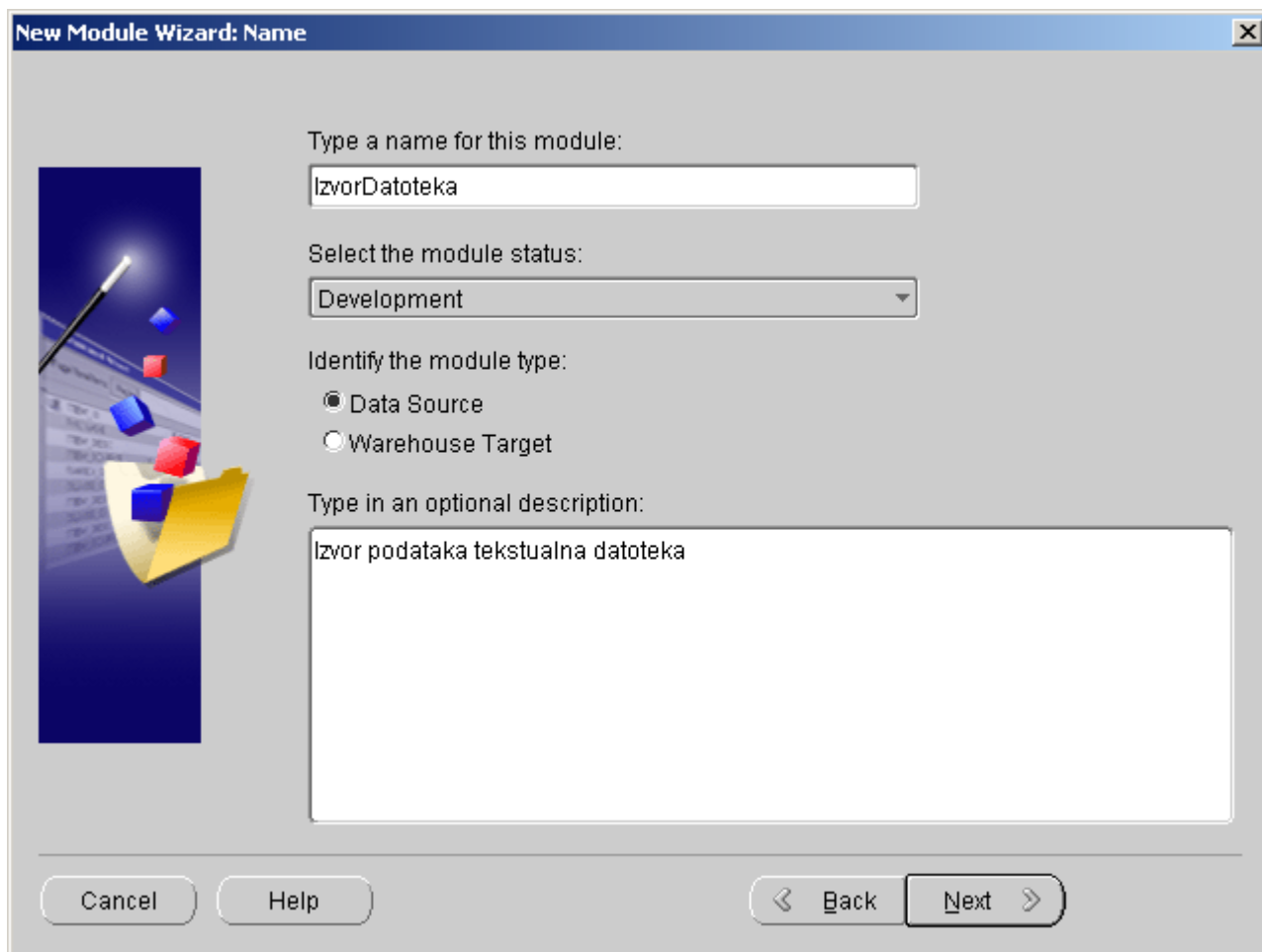


|                  |                                        |
|------------------|----------------------------------------|
| Name             |                                        |
| Name             | IzvorizBaze                            |
| Status           | Development                            |
| Usage            | Data Source                            |
| Data Source      |                                        |
| Application Type | Generic Oracle Database Application    |
| System Type      | Oracle Database 8i/9i                  |
| Integrator       | Oracle OWB Integrator for Oracle DB an |

☐ Proceed to the Import Metadata Wizard

Cancel Help Back Next Finish

# Kreiranje modula – izvor tekstualna datoteka

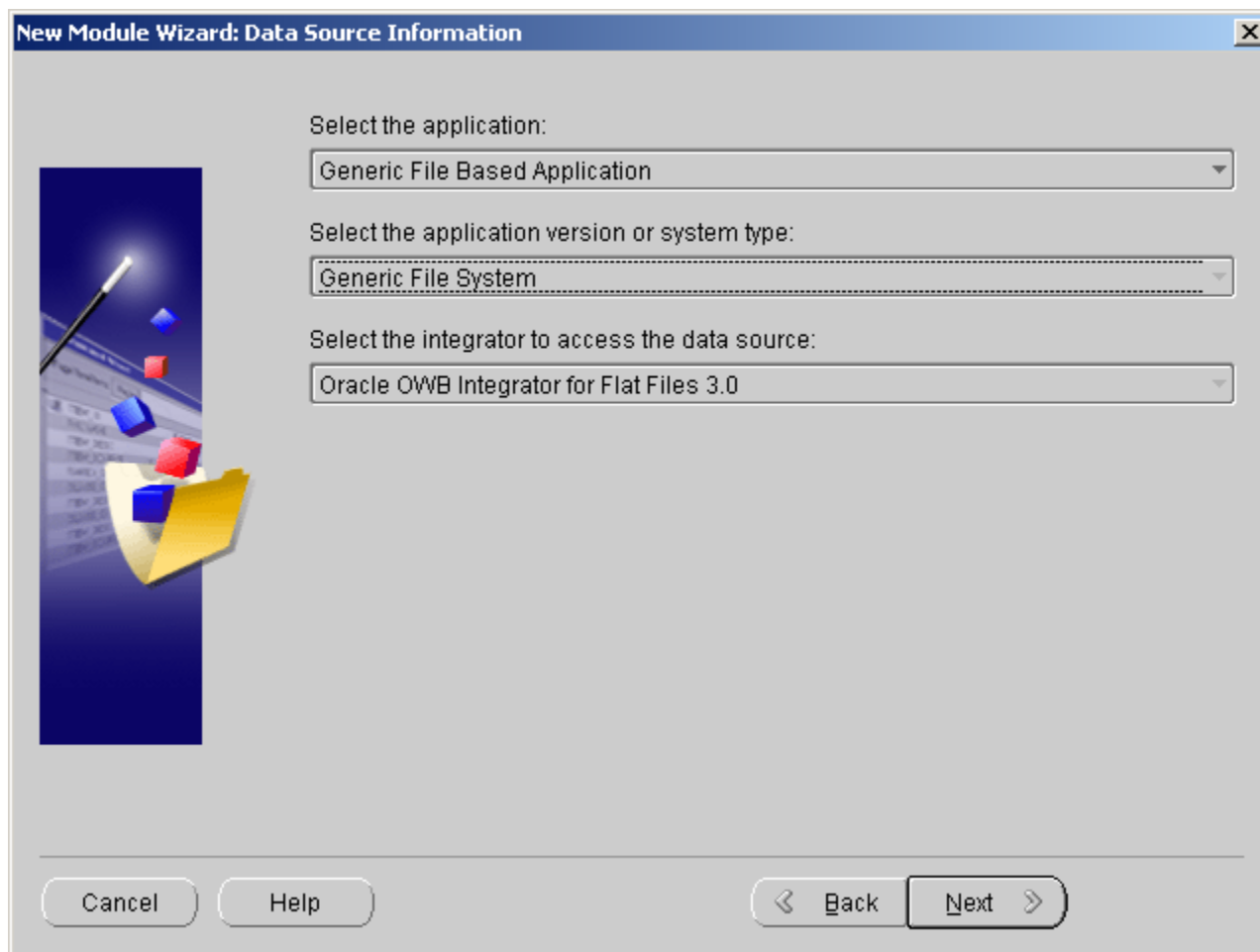


The image shows a 'New Module Wizard: Name' dialog box. On the left is a vertical decorative bar with a blue background, featuring a yellow folder icon, several small red and blue cubes, and a white wand with a glowing tip. The main area of the dialog is light gray and contains the following fields and controls:

- Type a name for this module:** A text input field containing 'IzvorDatoteka'.
- Select the module status:** A dropdown menu showing 'Development'.
- Identify the module type:** Two radio buttons. The first is labeled 'Data Source' and is selected. The second is labeled 'Warehouse Target'.
- Type in an optional description:** A large text area containing 'Izvor podataka tekstualna datoteka'.

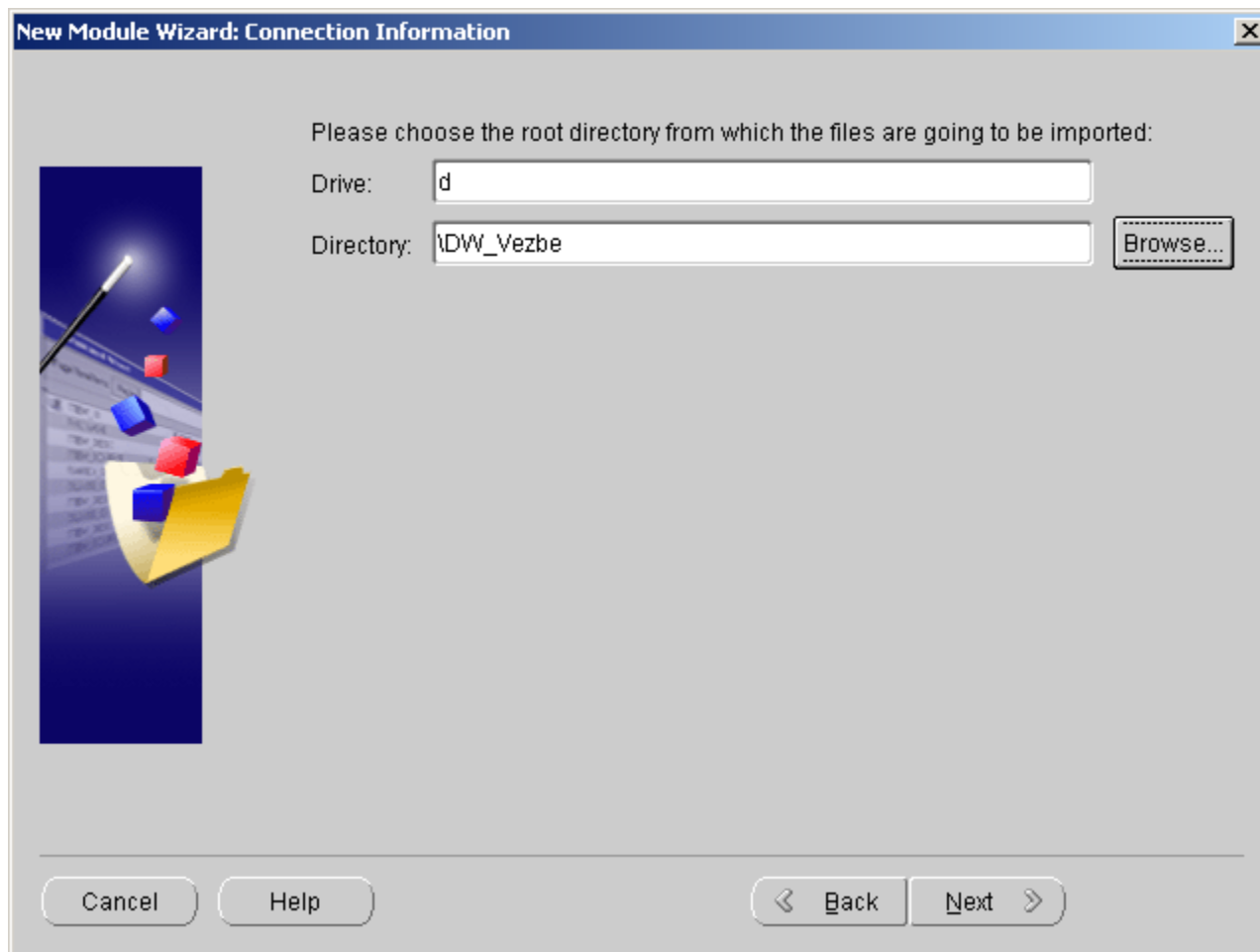
At the bottom of the dialog are four buttons: 'Cancel', 'Help', '< Back', and 'Next >'. The 'Next >' button is highlighted with a darker border.

# Kreiranje modula – izvor tekstualna datoteka

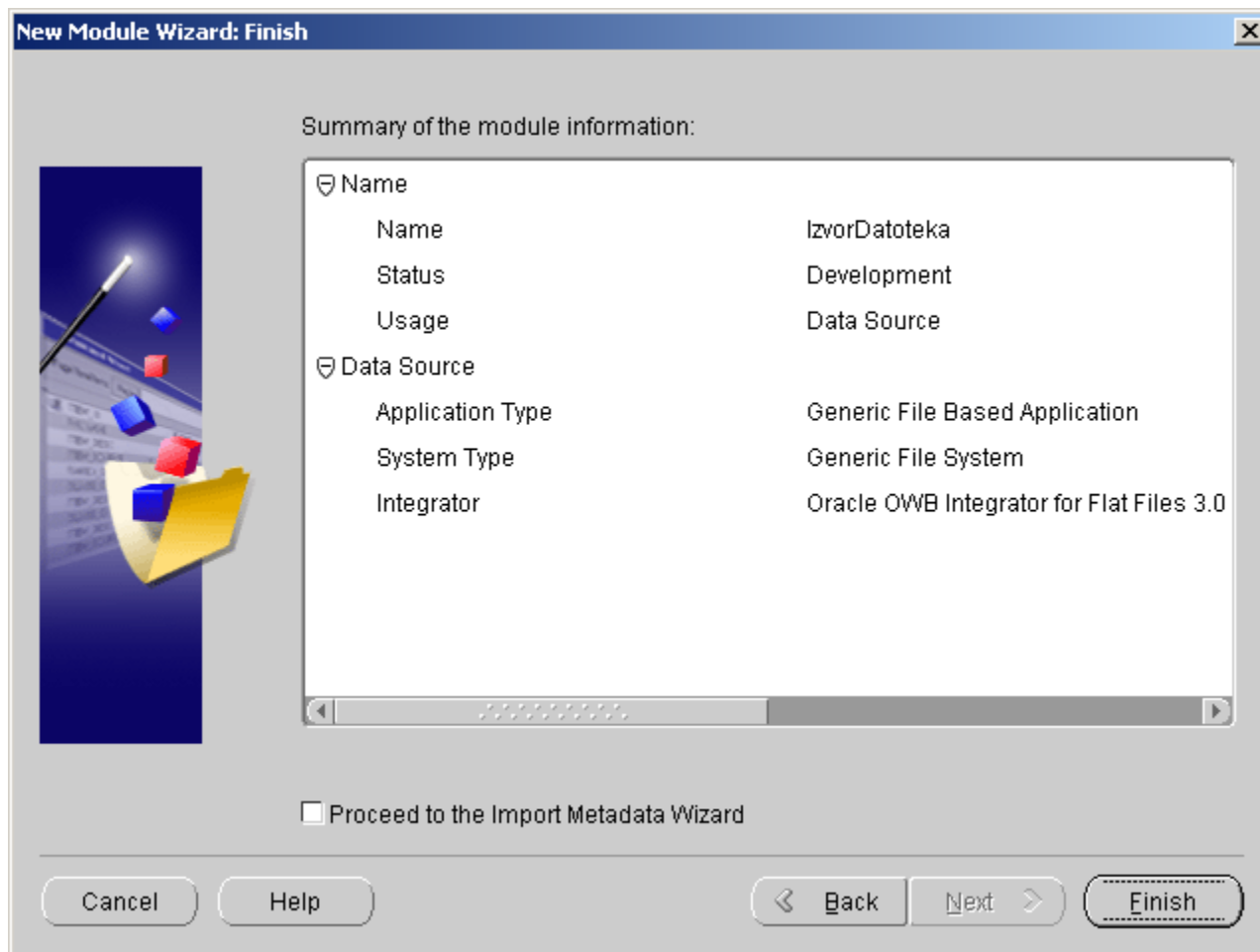


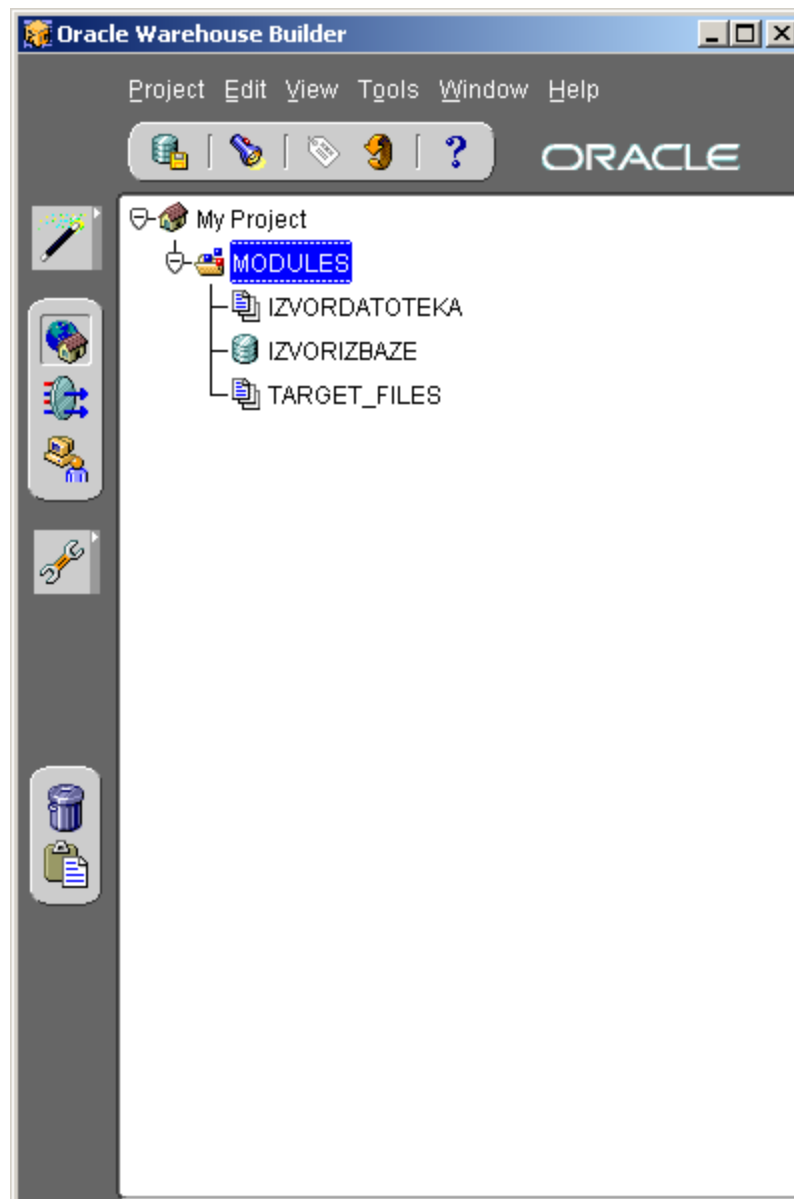


# Kreiranje modula – izvor tekstualna datoteka

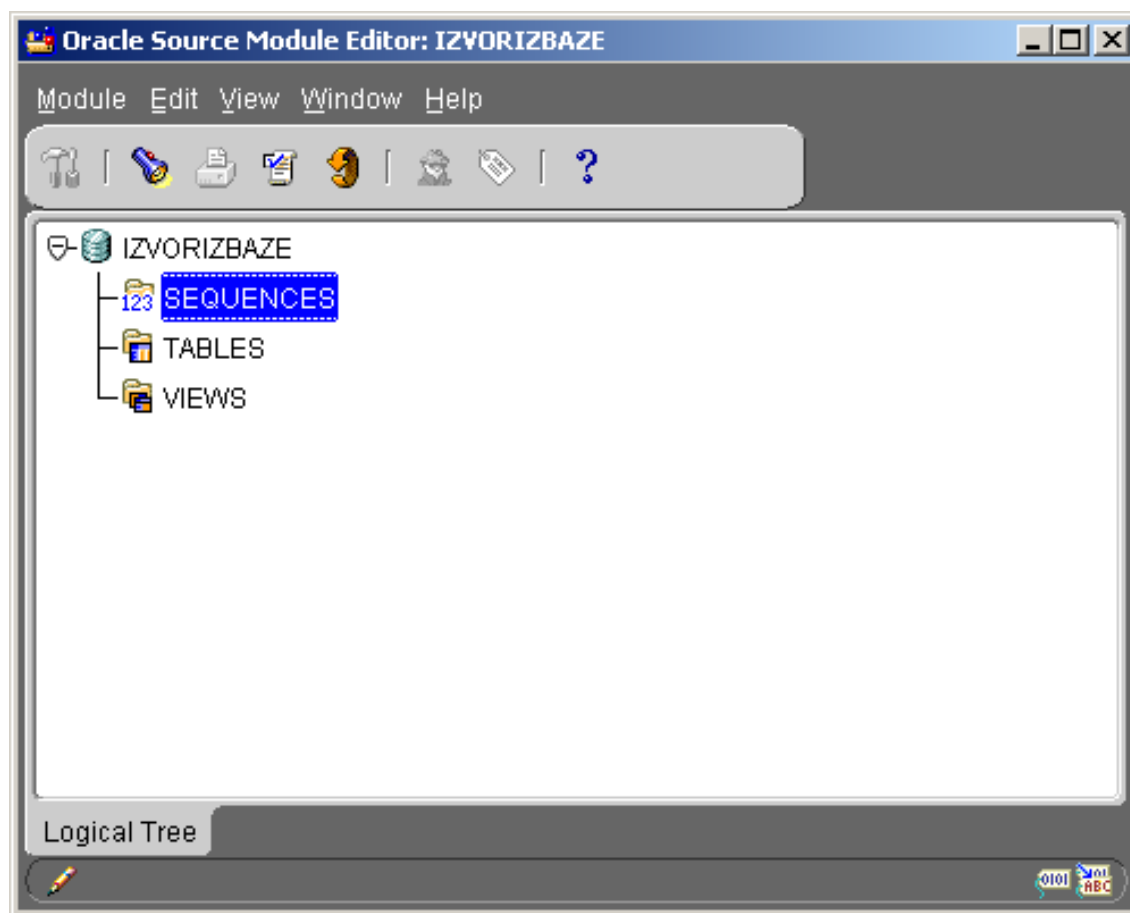


# Kreiranje modula – izvor tekstualna datoteka

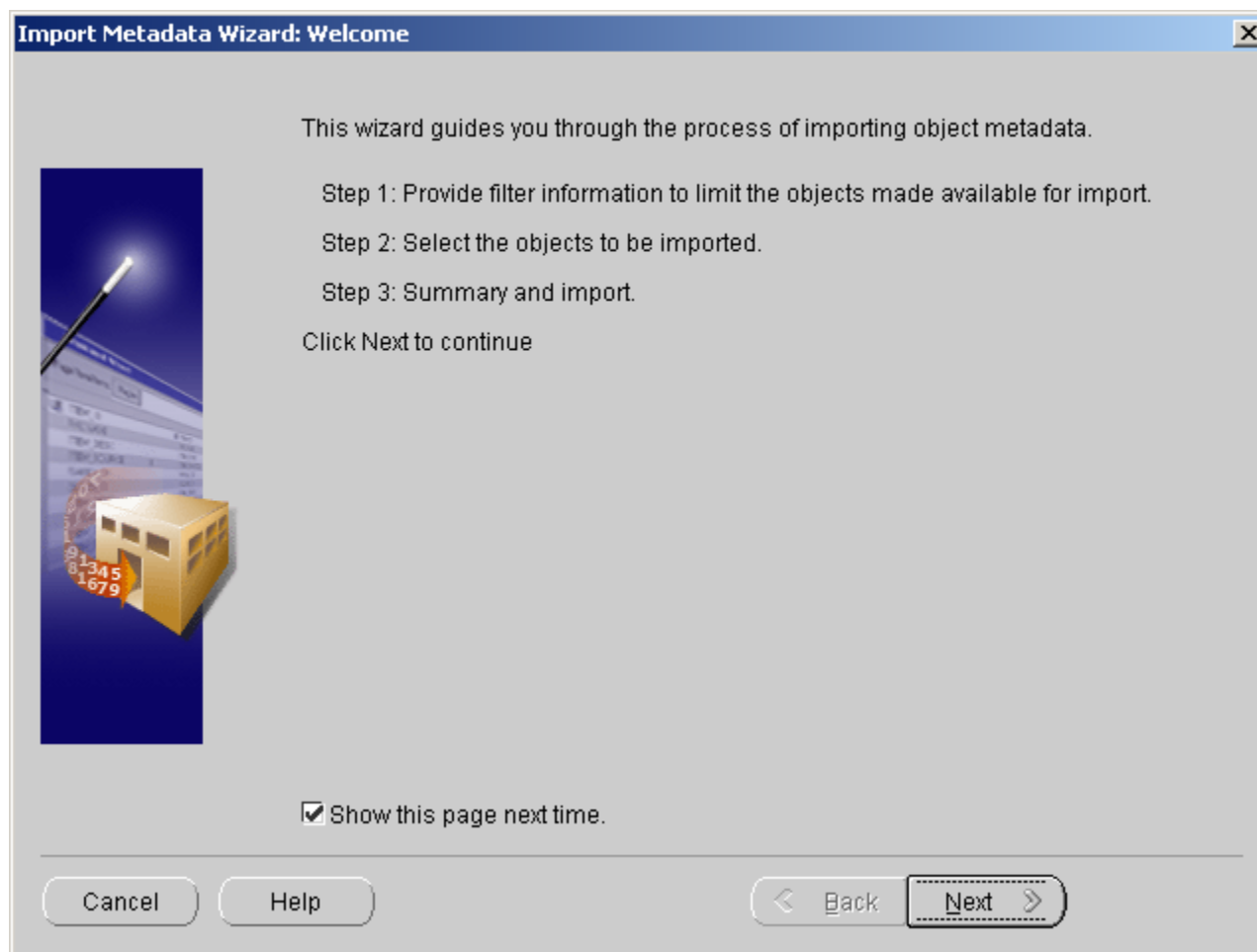




# Uvoz- import metapodataka iz baze podataka



# Uvoz- import metapodataka iz baze podataka



# Uvoz- import metapodataka iz baze podataka

Import Metadata Wizard: Filter Information

Use this page to filter the objects you want to import.

Select the types of objects you want to import:

Object Type

☒ Table ☐ View

☐ Sequence

☐ Use a synonym to look up objects

Use the name field to make wild card selections. Use (%) for zero or more matching or (\_) to find one matching character. Note that pattern search is case sensitive.

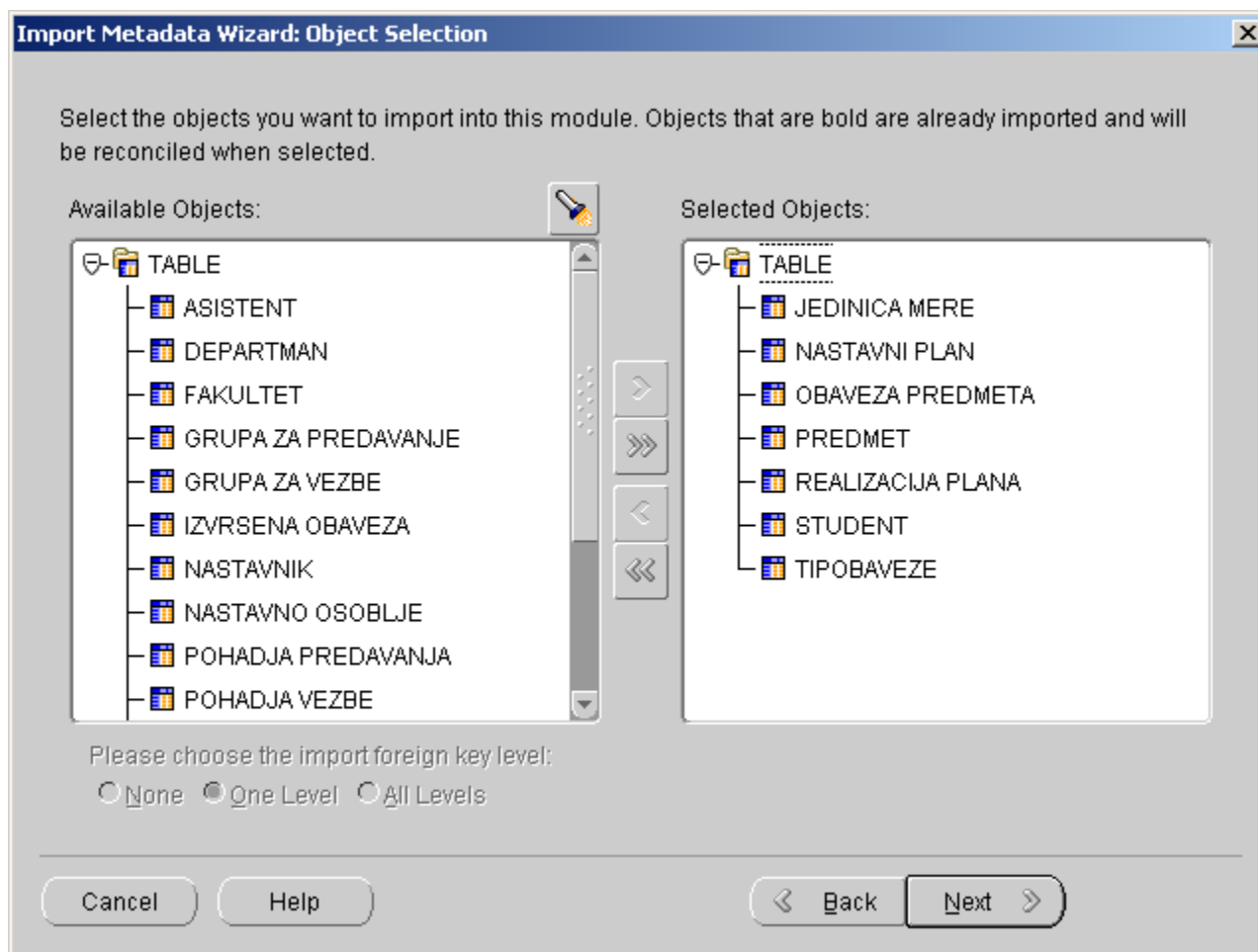
☐ Only select objects that match the pattern

Number of records to retrieve:

☐ Maximum number of objects to display for each type:

Cancel Help < Back Next >

# Uvoz- import metapodataka iz baze podataka



# Uvoz- import metapodataka iz baze podataka

**Import Metadata Wizard: Summary and Import**

The following 7 objects will be imported into the module. You can edit the description field for any objects.

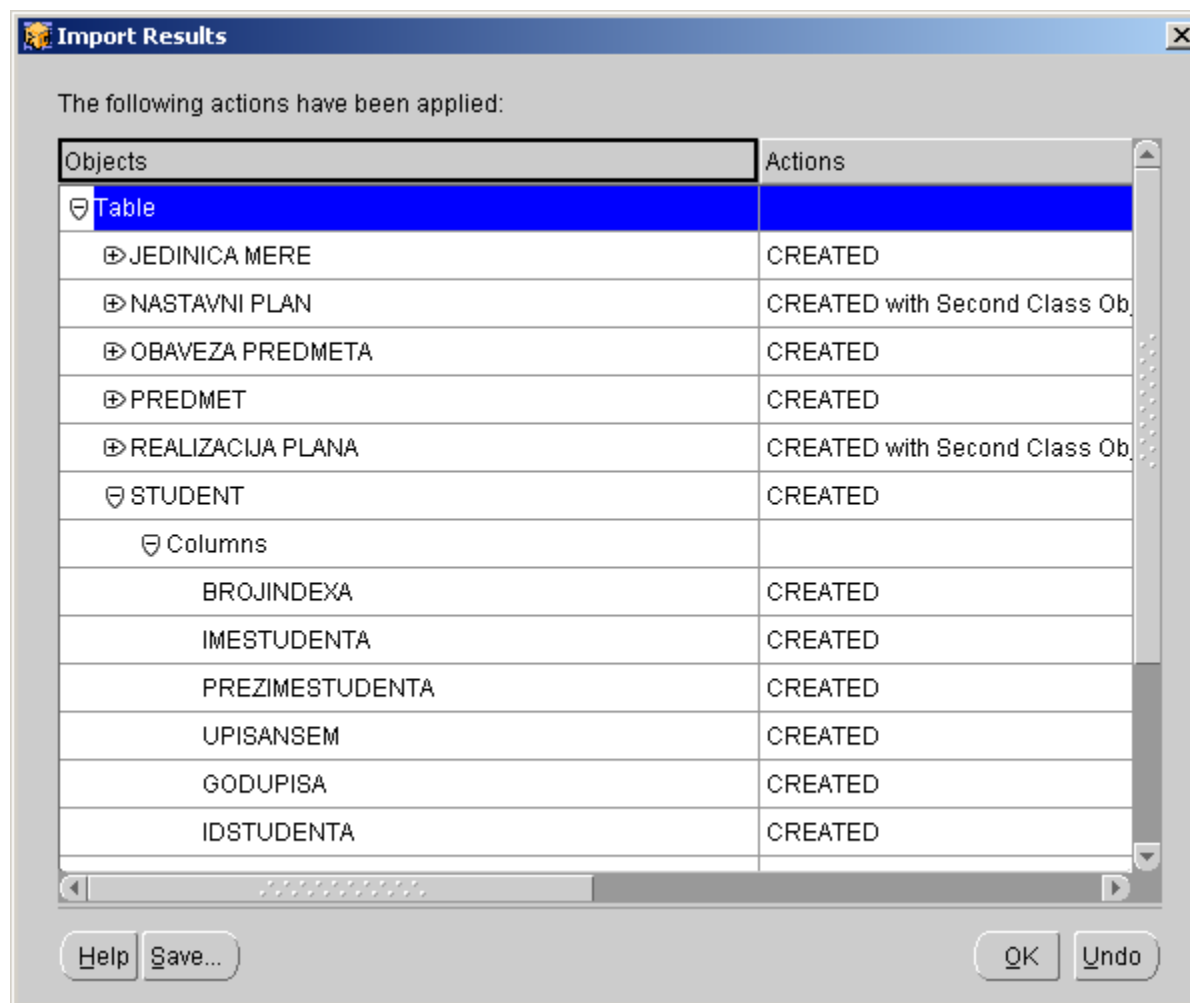
| Name              | Type  | Action | Description |
|-------------------|-------|--------|-------------|
| JEDINICA MERE     | Table | Create |             |
| NASTAVNI PLAN     | Table | Create |             |
| OBAVEZA PREDMETA  | Table | Create |             |
| PREDMET           | Table | Create |             |
| REALIZACIJA PLANA | Table | Create |             |
| STUDENT           | Table | Create |             |
| TIPOBAVEZE        | Table | Create |             |

Advanced Reconcile Options ...

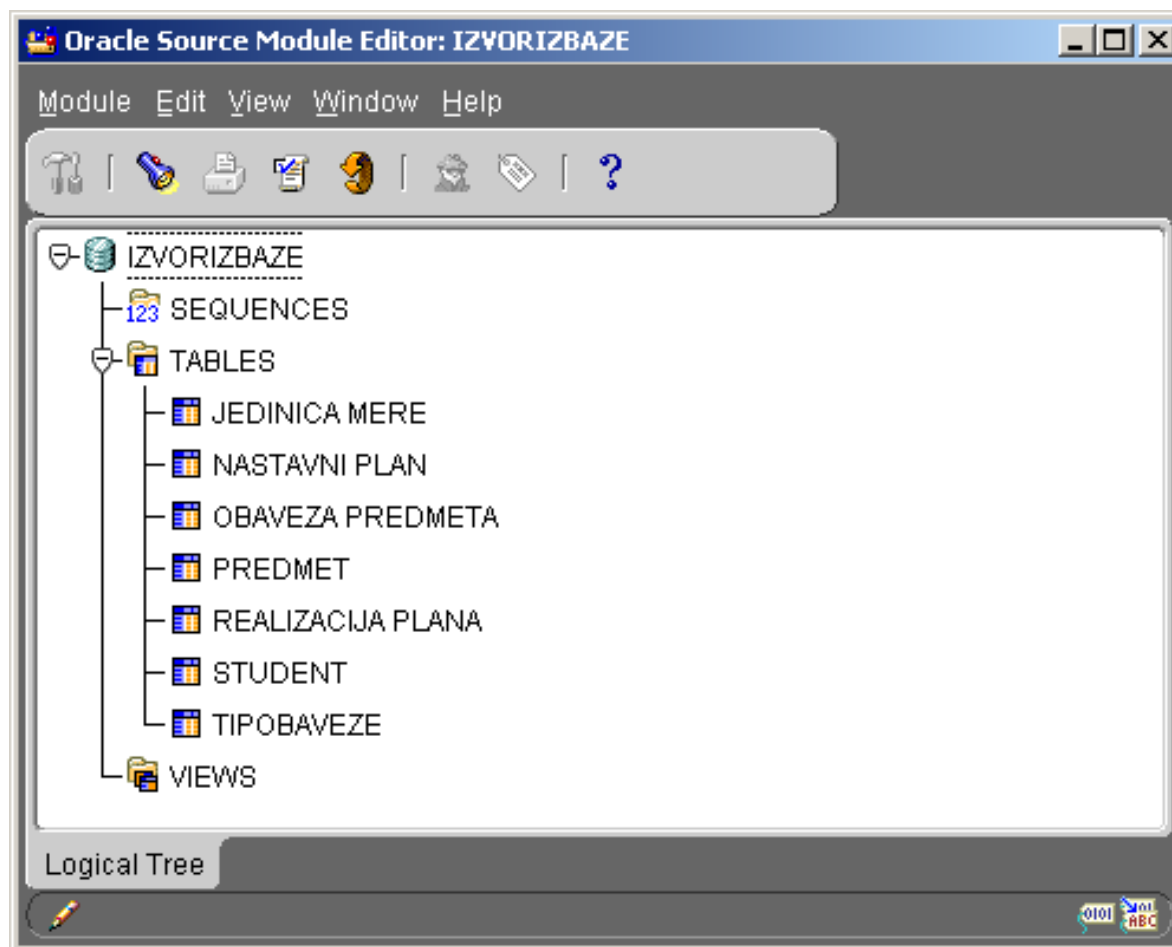
Cancel Help < Back Next > Finish



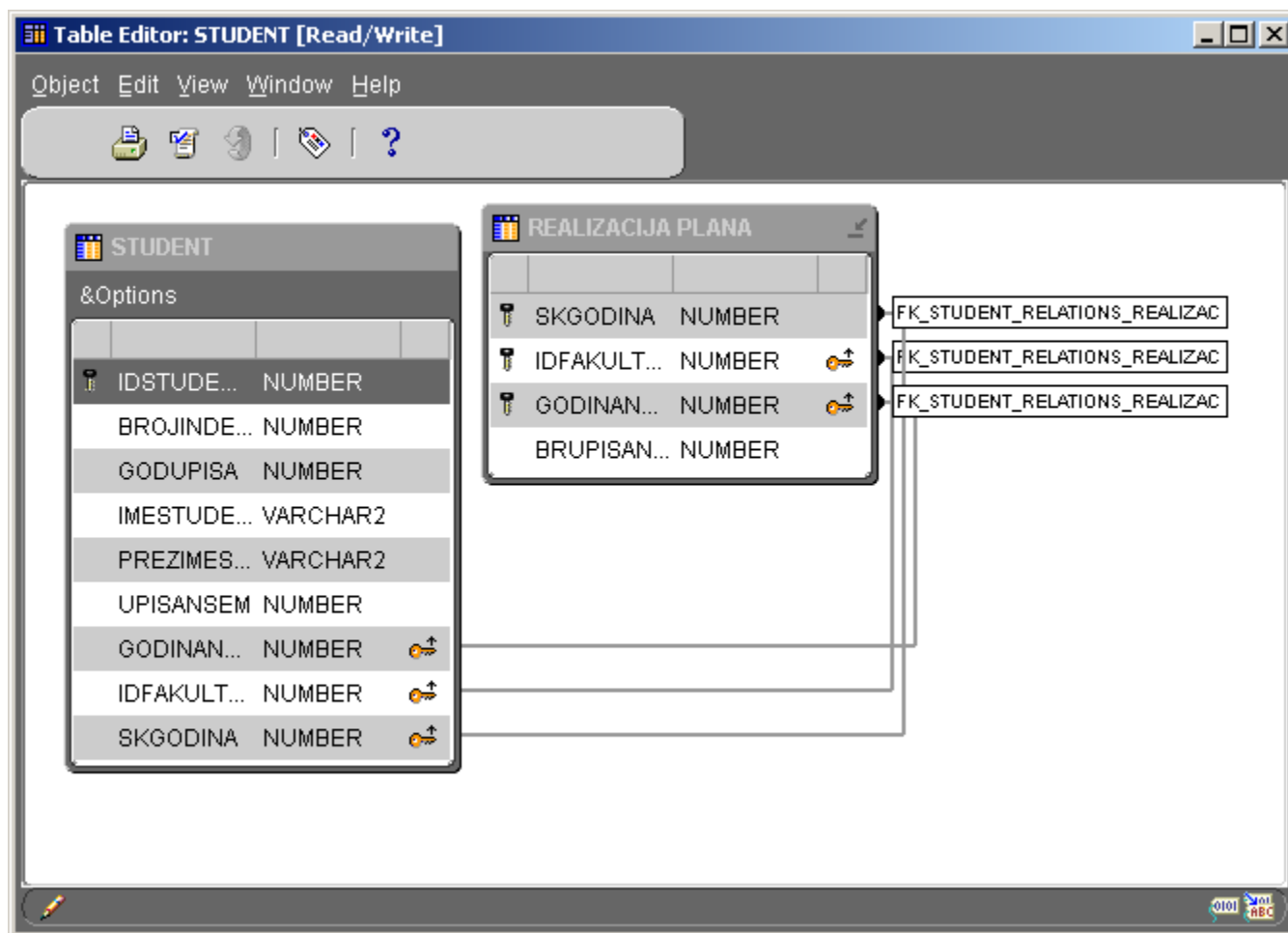
# Uvoz- import metapodataka iz baze podataka



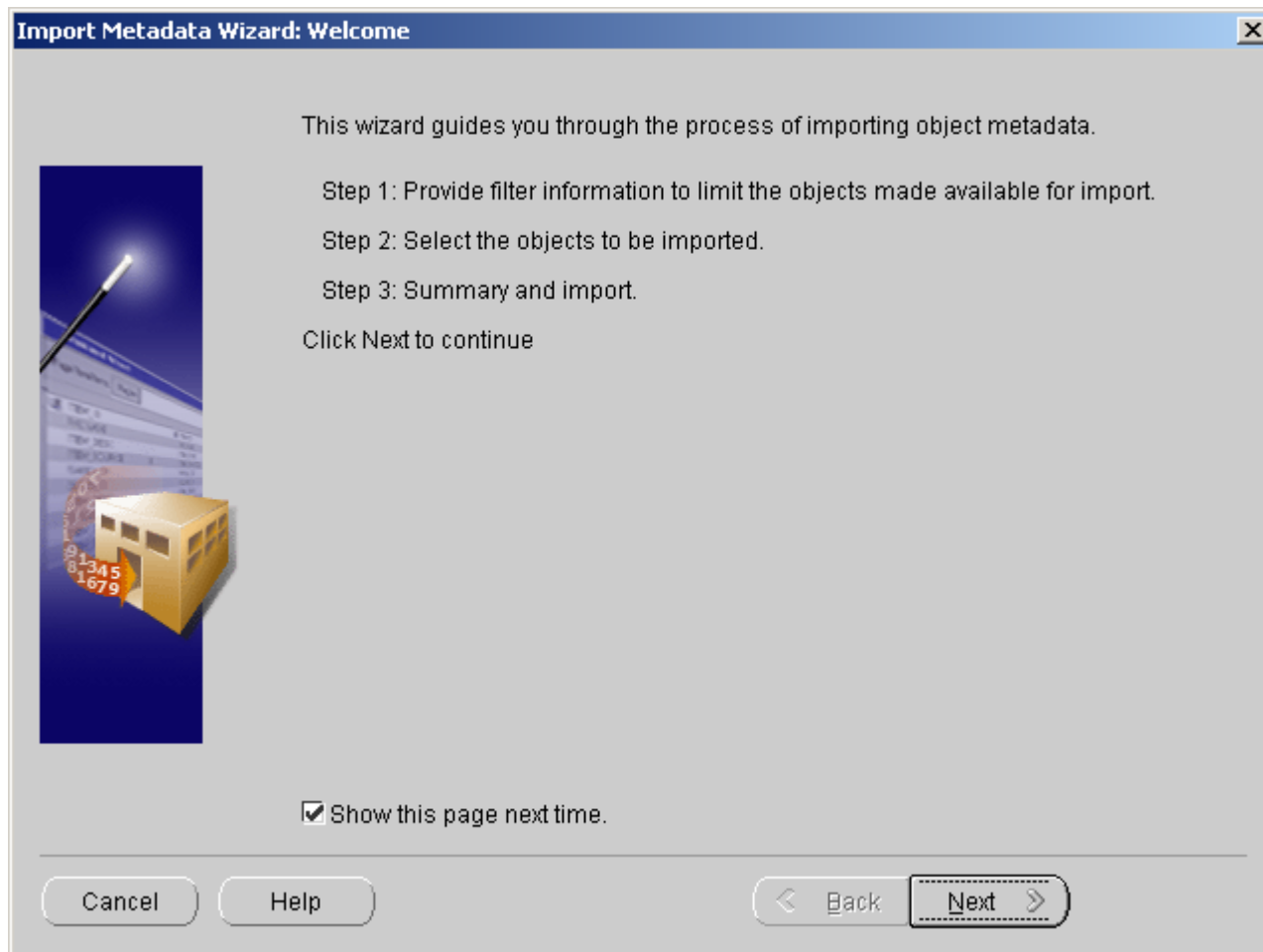
# Uvoz- import metapodataka iz baze podataka



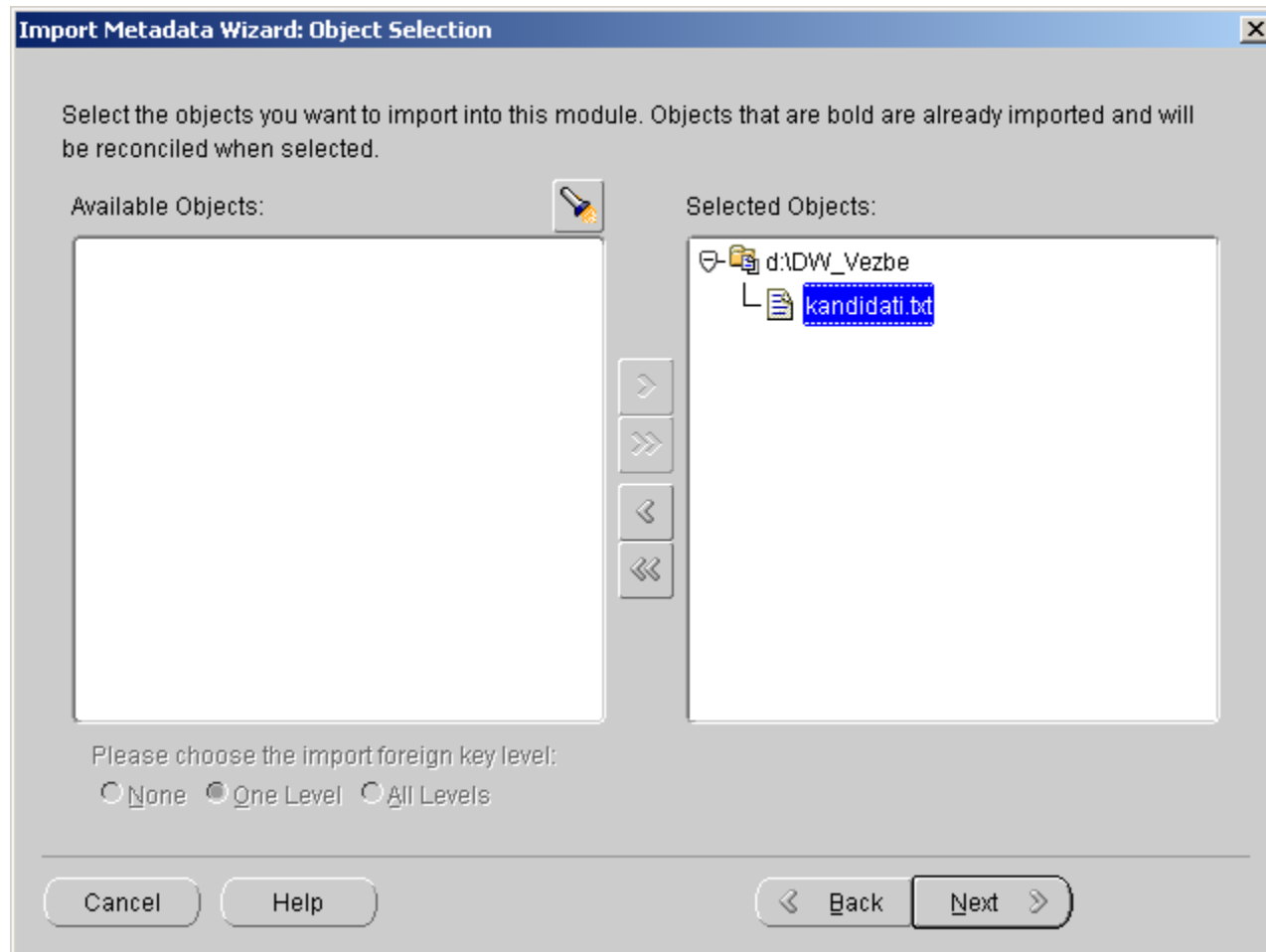
# Uvoz- import metapodataka iz baze podataka



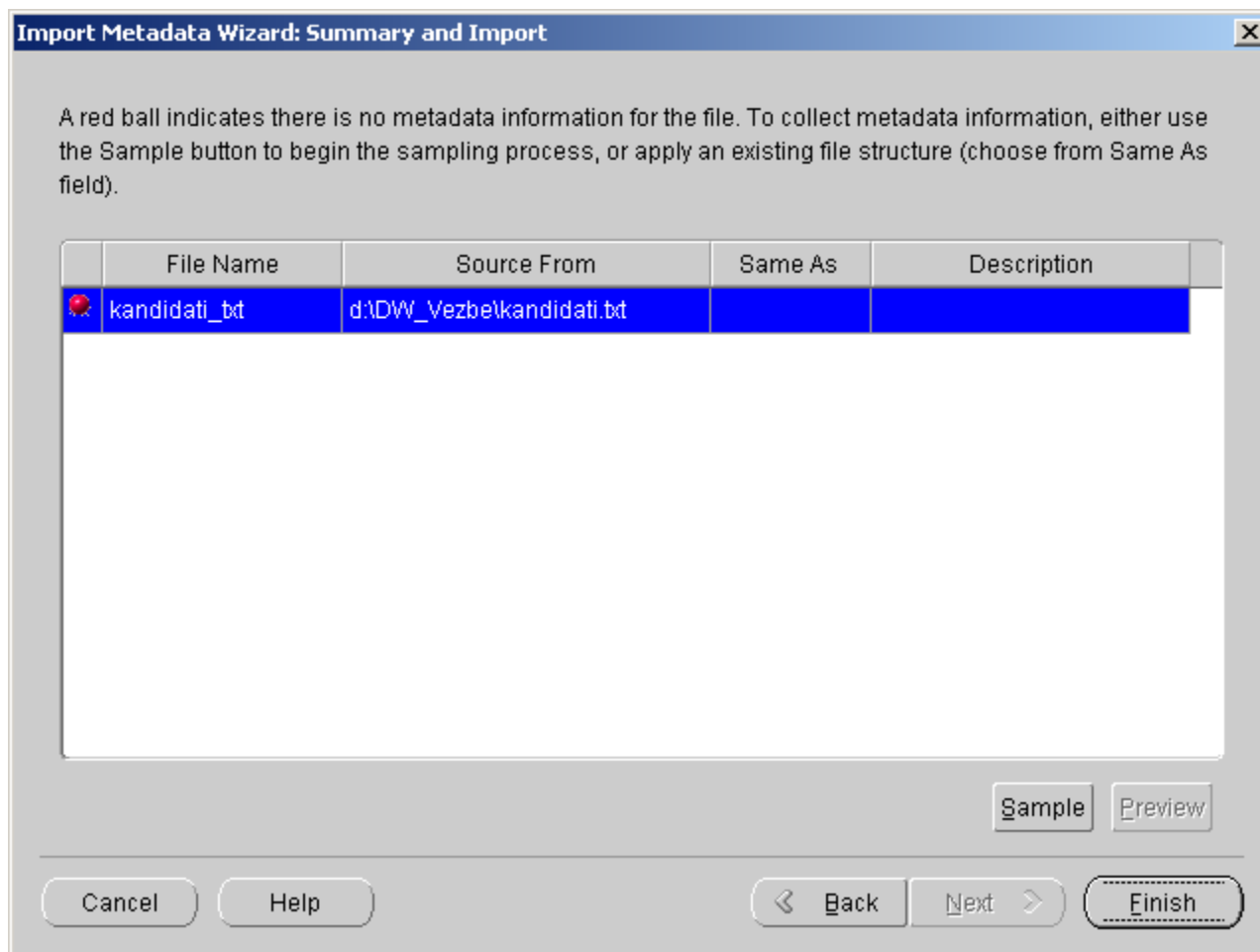
# Uvoz- import metapodataka iz datoteke



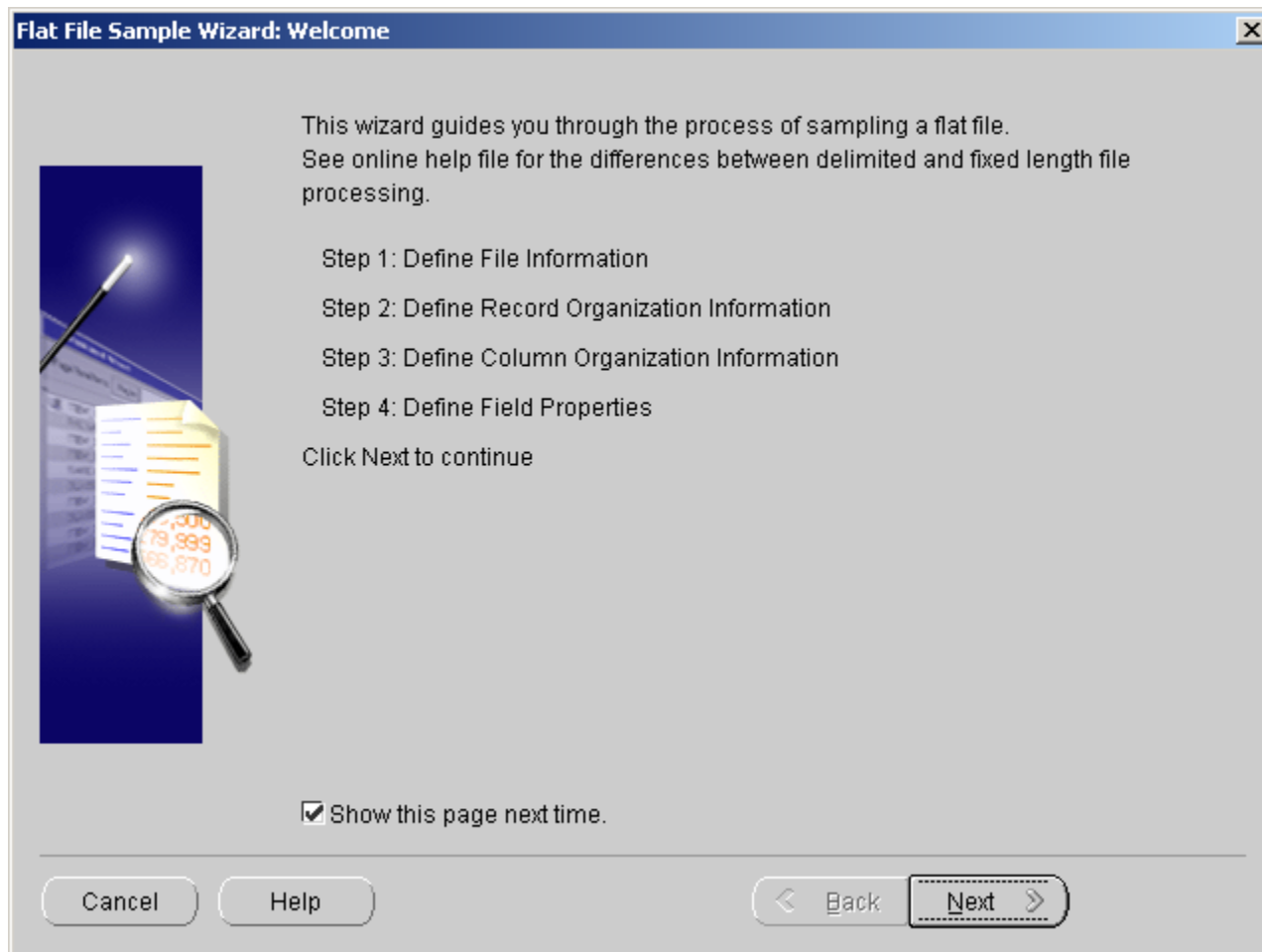
# Uvoz- import metapodataka iz datoteke



# Uvoz- import metapodataka iz datoteke



# Uvoz- import metapodataka iz datoteke



# Uvoz- import metapodataka iz datoteke

Flat File Sample Wizard: Setup

Select File Format:

☒ Delimited or Variable length. The fields are separated by delimiters.

☐ Fixed Length. The fields are of specific lengths.

Specify a delimiter separation character and enclosure characters.

Field Delimiter: Space

Enclosures: Left: " Right: "

File name: kandidati.txt

Character set: WE8MSWIN1252

File: d:\DW\_Vezbe\kandidati.txt

| C1       | C2    | C3      | C4      |
|----------|-------|---------|---------|
| BrIndexa | Ime   | Prezime | SrOcena |
| 300      | Petar | Peic    | 5.00    |
| 301      | Ilija | Savic   | 4.60    |
| 100      | Jovan | Ilic    | 4.20    |
| 302      | Milan | Milic   | 4.50    |

Cancel Help < Back Next >



# Uvoz- import metapodataka iz datoteke

Flat File Sample Wizard: Record Organization

File contains:

☒ Single record type

☐ Multiple record types

Specify how to sample this file:

Number of rows:

Skip rows:

☐ Enable logical record support

Logical Records consist of several Physical Records. Specify one of the following:

☒ Number of physical records per logical record:

☐ End character of the current physical record:

☐ Start character of the next physical record:

File: d:\DW\_Vezbe\kandidati.txt

| C1       | C2    | C3      | C4      |
|----------|-------|---------|---------|
| BrIndexa | Ime   | Prezime | SrOcena |
| 300      | Petar | Peic    | 5.00    |
| 301      | Ilija | Savic   | 4.60    |
| 100      | Jovan | Ilic    | 4.20    |
| ...      | ...   | ...     | ...     |

Cancel Help < Back Next >

# Uvoz- import metapodataka iz datoteke

Flat File Sample Wizard: Properties

Field types and lengths are determined by sample data. Specify field names and adjust data characteristics.

| Name     | Type | Mask | NULLIF | DEFAULTIF | Length |
|----------|------|------|--------|-----------|--------|
| BrInd... | CHAR |      |        |           | 8      |
| Ime      | CHAR |      |        |           | 6      |
| Prezi... | CHAR |      |        |           | 9      |
| SrOc...  | CHAR |      |        |           | 7      |

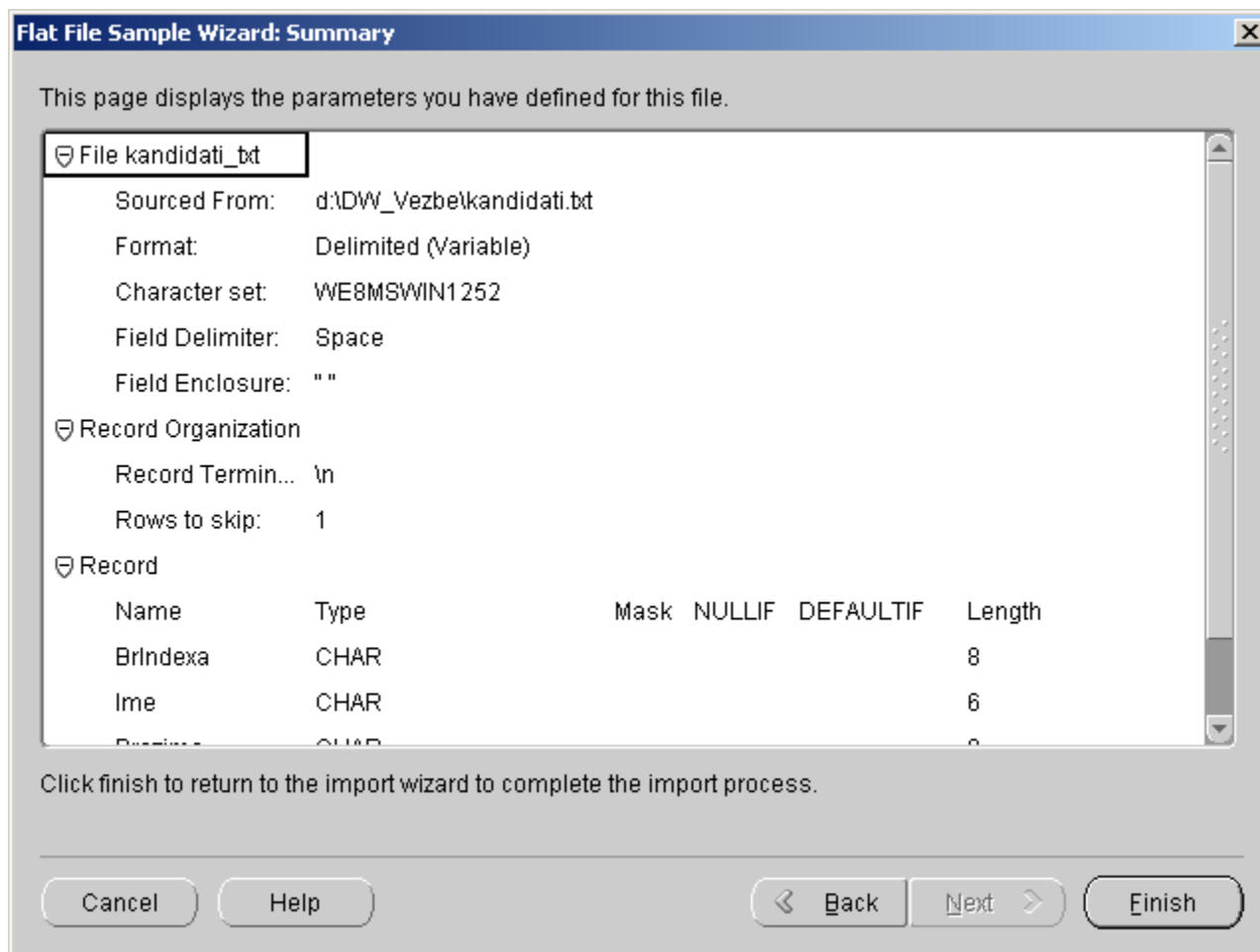
File: d:\DW\_Vezbelkandidati.bt

☒ Use the first record as the field names

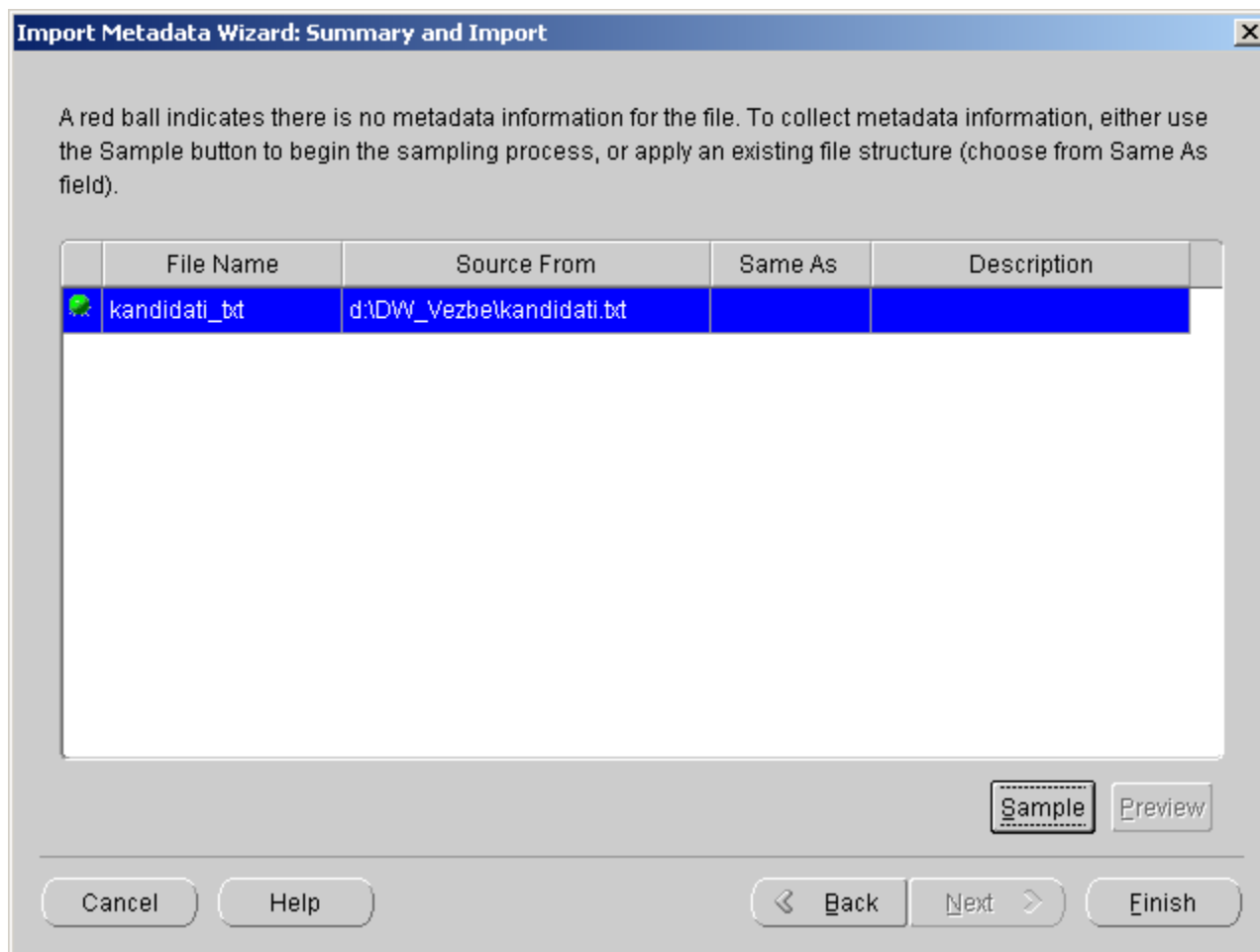
| BrIndexa | Ime   | Prezime | SrOcena |
|----------|-------|---------|---------|
| 300      | Petar | Peic    | 5.00    |
| 301      | Ilija | Savic   | 4.60    |
| 100      | Jovan | Ilic    | 4.20    |
| 302      | Milan | Milic   | 4.50    |
| 303      | Iva   | Ivic    | 5.00    |

Cancel Help < Back Next >

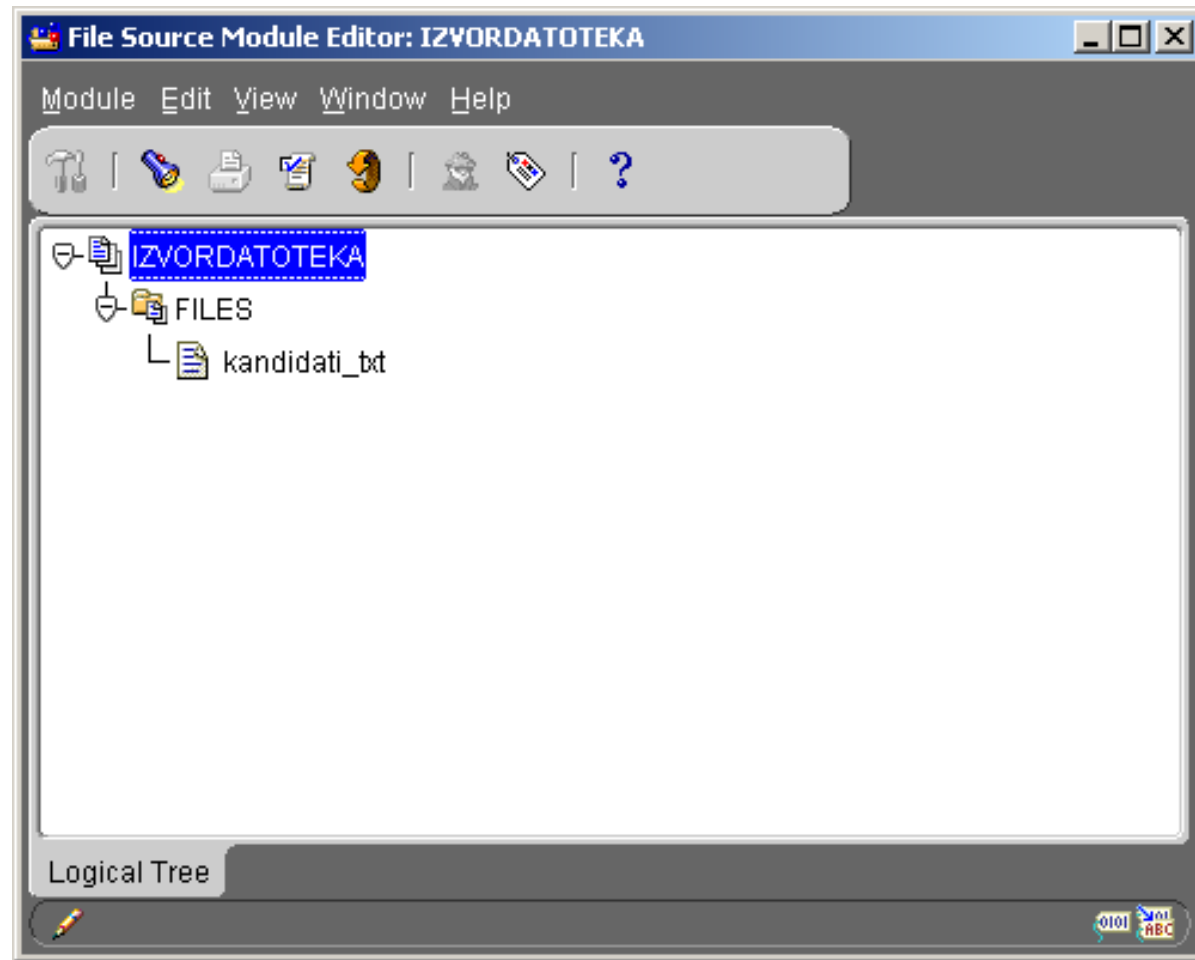
# Uvoz- import metapodataka iz datoteke



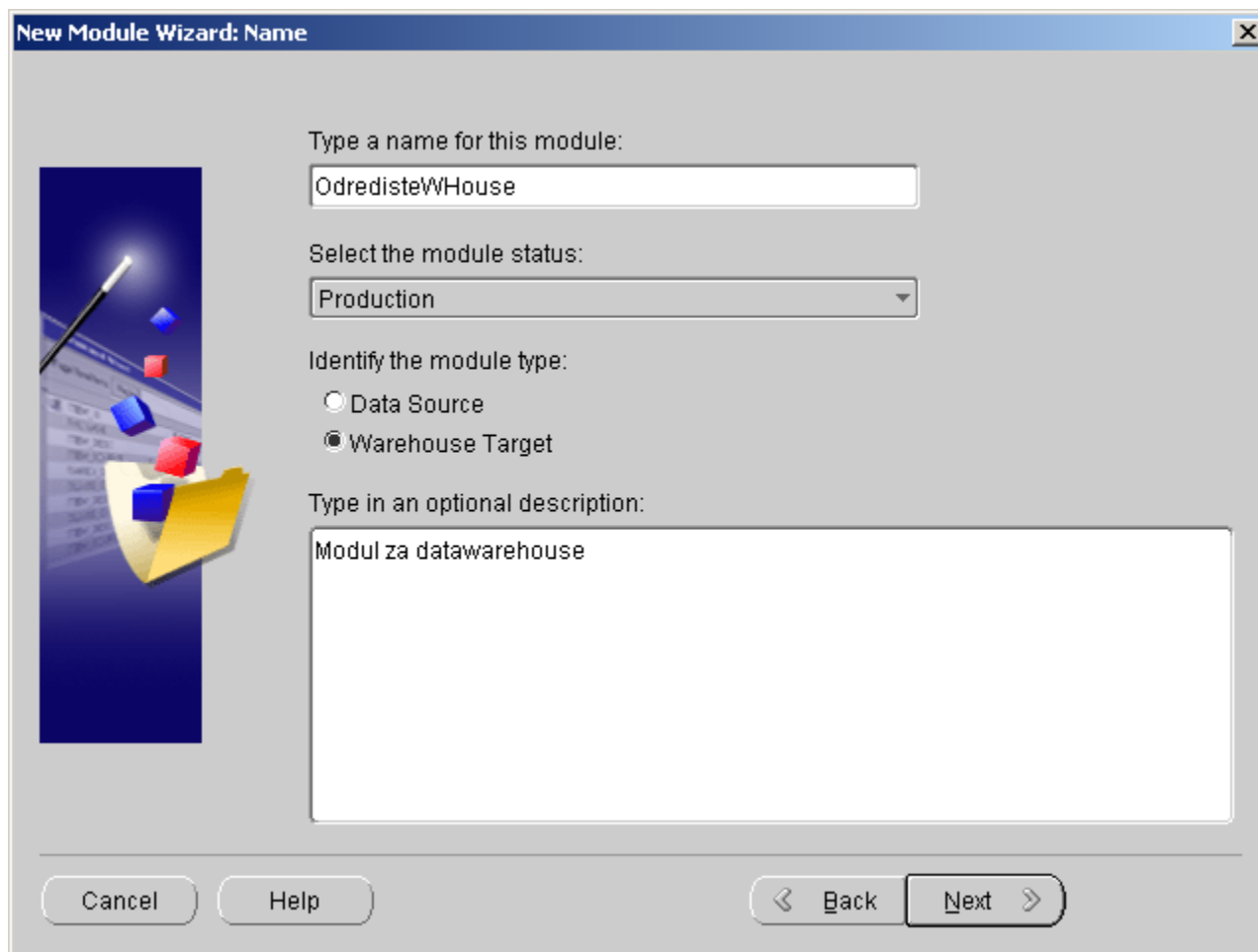
# Uvoz- import metapodataka iz datoteke



# Uvoz- import metapodataka iz datoteke



# Kreiranje odredišnog modula



The image shows a 'New Module Wizard: Name' dialog box. On the left is a vertical blue bar with a graphic of a yellow folder, a red cube, a blue cube, and a black wand with a white tip. The main area contains four sections: 'Type a name for this module:' with a text box containing 'OdredisteWHouse'; 'Select the module status:' with a dropdown menu showing 'Production'; 'Identify the module type:' with two radio buttons, 'Data Source' (unselected) and 'Warehouse Target' (selected); and 'Type in an optional description:' with a text box containing 'Modul za datawarehouse'. At the bottom are four buttons: 'Cancel', 'Help', '< Back', and 'Next >'.

New Module Wizard: Name

Type a name for this module:

OdredisteWHouse

Select the module status:

Production

Identify the module type:

☐ Data Source

☒ Warehouse Target

Type in an optional description:

Modul za datawarehouse

Cancel Help < Back Next >

# Kreiranje odredišnog modula

New Module Wizard: Connection Information

Select or create a database link to import metadata into the module. The database link physically exists in the Warehouse Builder repository schema and is only used for metadata retrieval.

Source for Metadata Import:

☒ Oracle Data Dictionary

☐ Oracle Designer Repository

☒ Skip connection information for now

Database link:

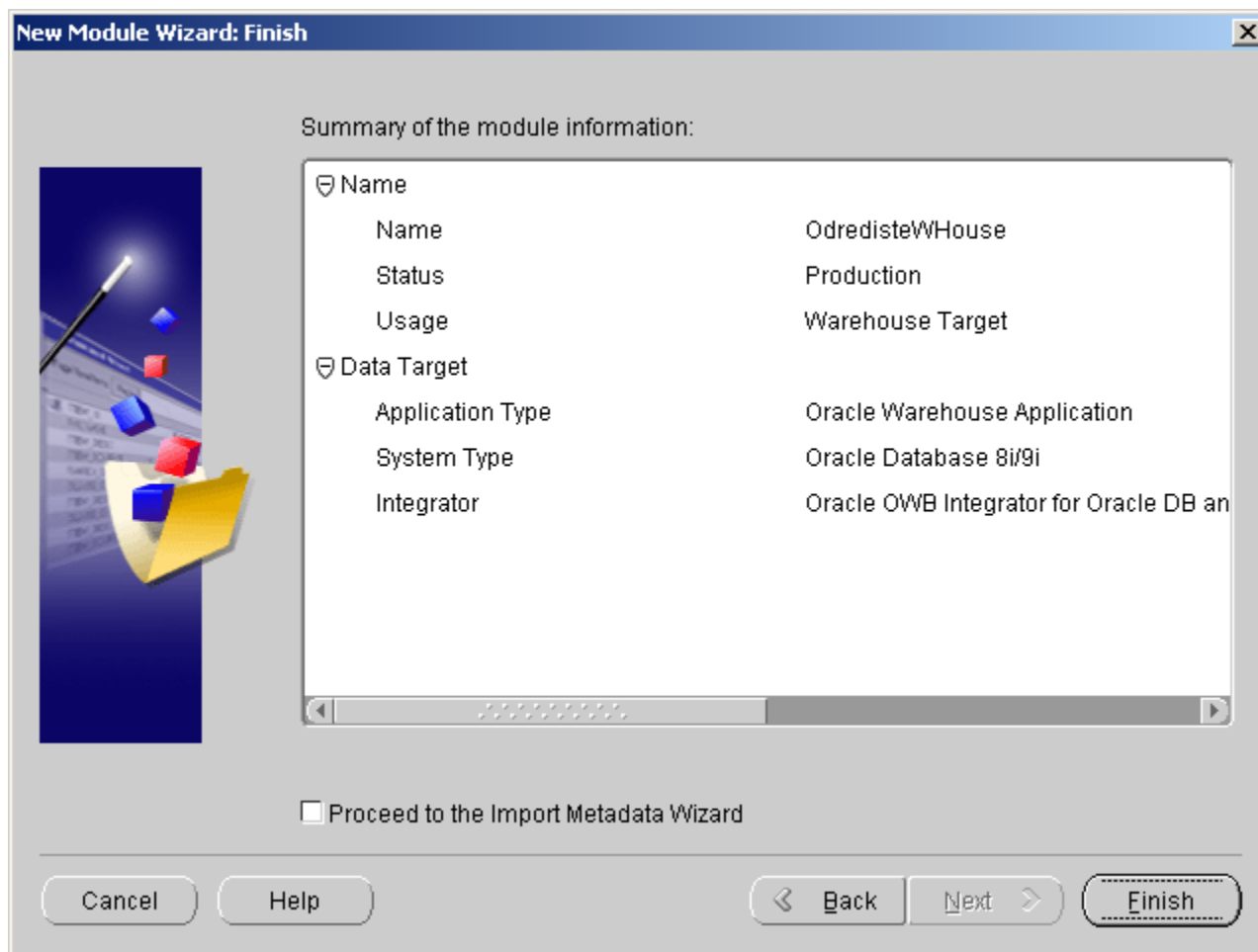
Owner:

User Name:

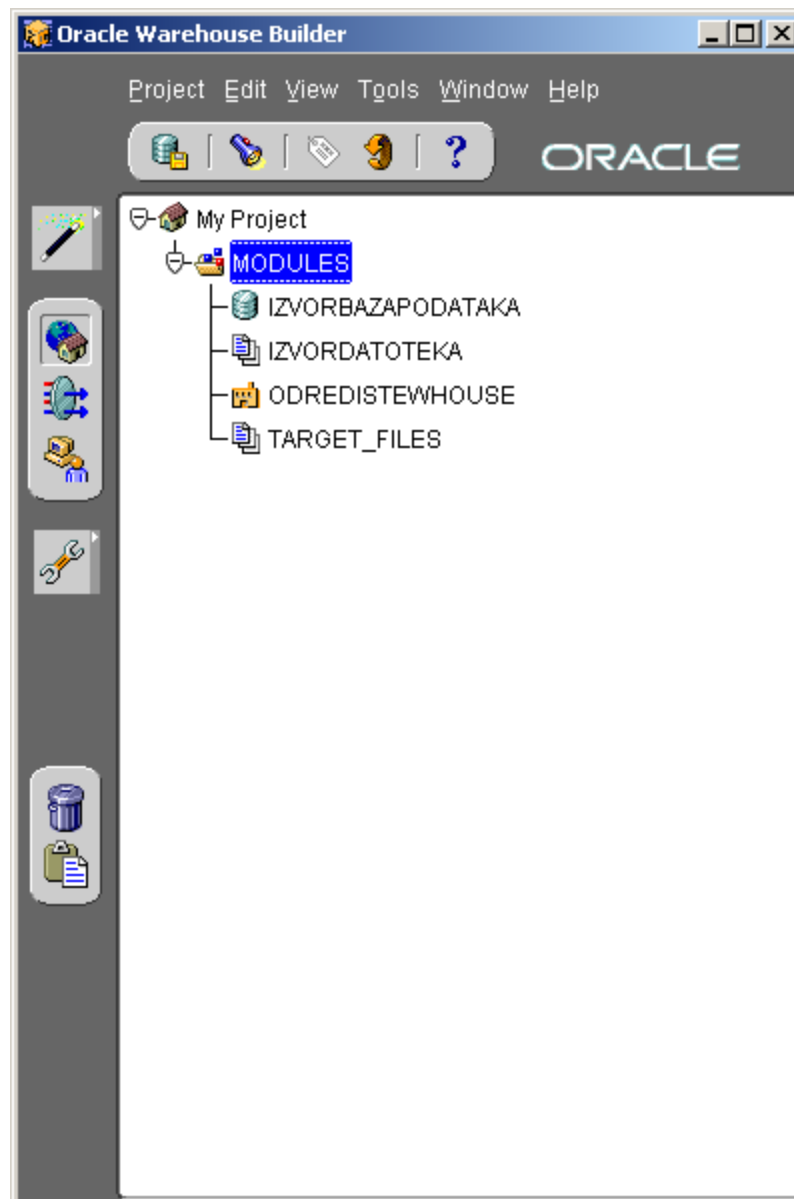
Connect String:

Schema:

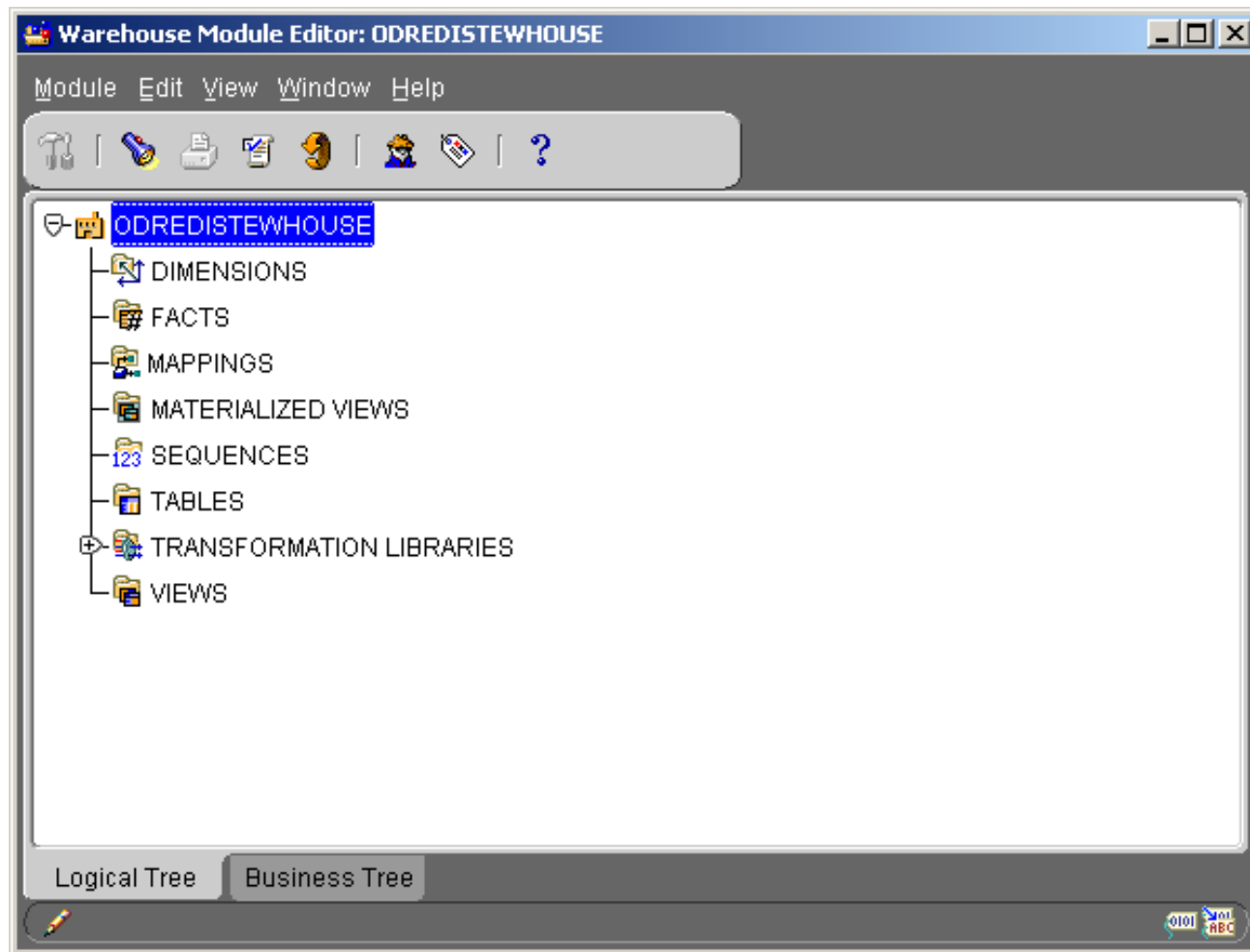
# Kreiranje odredišnog modula



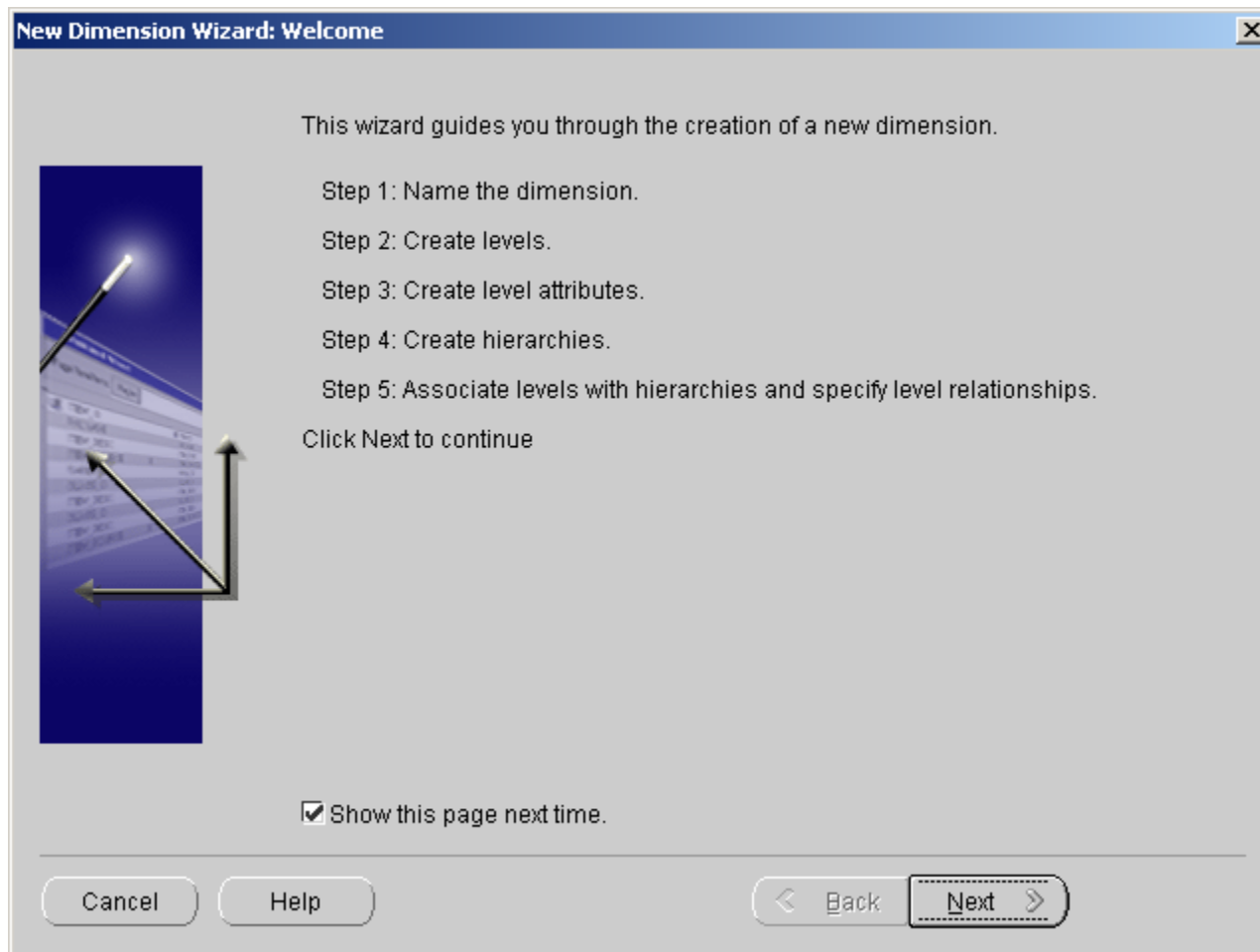




# Prikaz stabla odredišnog modula



# Kreiranje dimenzija



# Kreiranje dimenzija

**New Dimension Wizard: Name** ✕

Type in a name for the dimension:

Specify the prefix used in key names (optional):

Type in an optional description:



# Kreiranje dimenzija

New Dimension Wizard: Levels

Fill in the fields and click Add to create a new level.



Define Level

Name:

Prefix:

Description:

Levels:

VremeLevel

Add

Update

Remove

Cancel

Help

< Back

Next >

Finish

# Kreiranje dimenzija

New Dimension Wizard: Level Attributes

Pick level, click Add to create level attributes.

Level:  
VremeLevel

Define Level Attribute

Name:

Data Type:  
NUMBER

Length:  
0

Precision:  
0

Scale:  
0

Description:

Level Attributes

- VreID
- VreSkGod
- VreSemestar
- VrePolusemestar

Add Update Remove

Cancel Help Back Next Finish



The diagram illustrates the data flow for creating level attributes. It shows a source table with columns 'VremeLevel', 'VreID', 'VreSkGod', 'VreSemestar', and 'VrePolusemestar'. Arrows indicate the mapping of these columns to the wizard's input fields: 'VremeLevel' to the 'Level' dropdown, 'VreID' to the 'Name' field, 'VreSkGod' to the 'Data Type' dropdown, 'VreSemestar' to the 'Length' field, and 'VrePolusemestar' to the 'Precision' field. The 'VrePolusemestar' column is highlighted in blue in the source table, and the 'VrePolusemestar' attribute is highlighted in blue in the 'Level Attributes' list.

# Kreiranje dimenzija

New Dimension Wizard: Hierarchies

Fill fields, click Add creates a new hierarchy.



Define Hierarchy

Name:

Prefix:

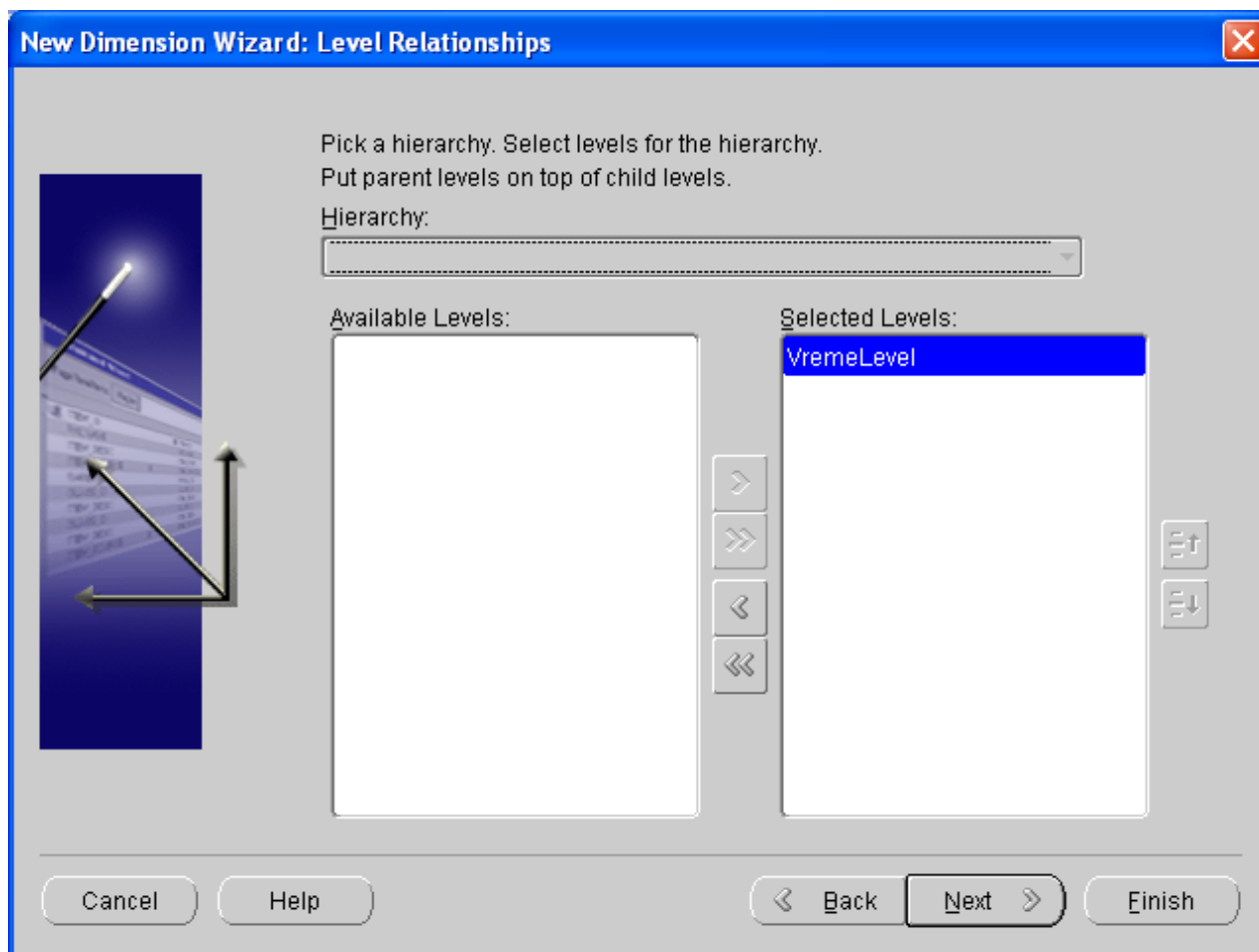
Description:

Hierarchies:

Add Update Remove

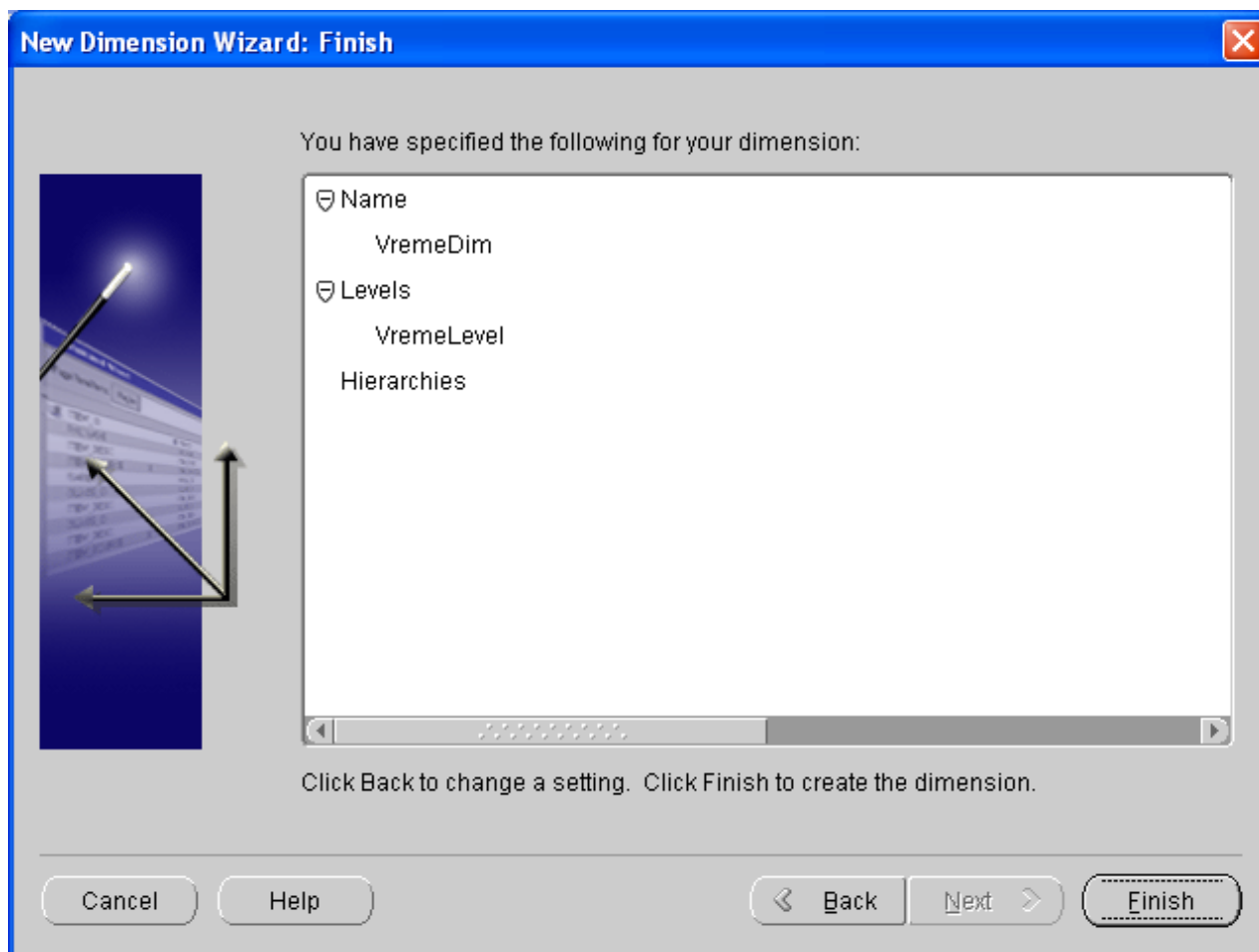
Cancel Help < Back Next > Finish

# Kreiranje dimenzija

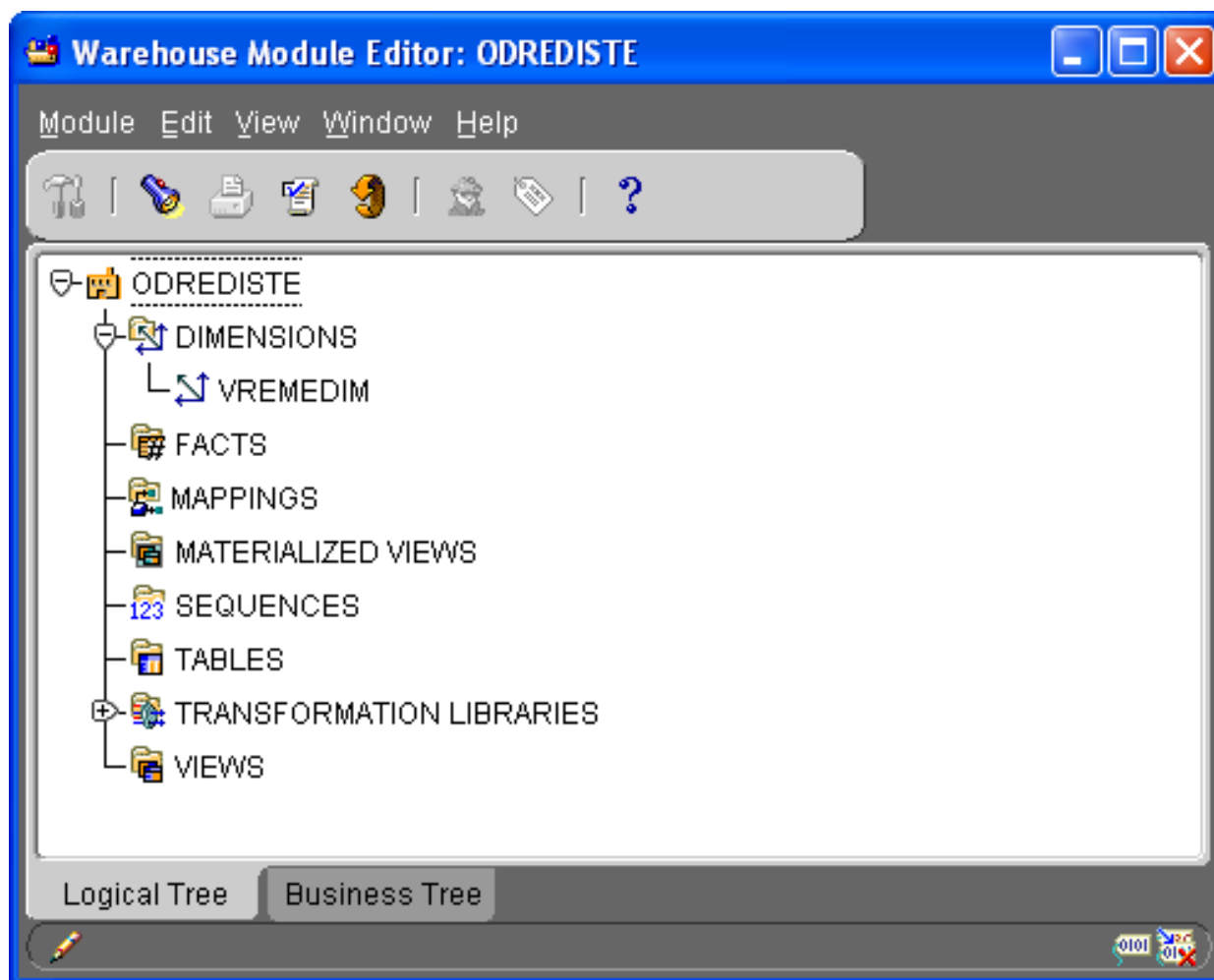




# Kreiranje dimenzija



# Kreiranje dimenzija



# Kreiranje dimenzija

**New Dimension Wizard: Name**

Type in a name for the dimension:

Specify the prefix used in key names (optional):

Type in an optional description:



# Kreiranje dimenzija

New Dimension Wizard: Levels

Fill in the fields and click Add to create a new level.

Define Level

Name:

PredmetLevel

Prefix:

PL

Description:

Levels:

StudProgramLevel

PredmetLevel

Add

Update

Remove

Cancel

Help

Back

Next

Finish

# Kreiranje dimenzija

New Dimension Wizard: Level Attributes

Pick level, click Add to create level attributes.

Level: StudProgramLevel

Define Level Attribute

Name:

Data Type: NUMBER Length: 0

Precision: 0 Scale: 0

Description:

Level Attributes

- SPId
- SPGodStudPrograma
- SPSkGodPred**

Add Update Remove

Cancel Help Back Next Finish



The diagram illustrates the data flow for creating a dimension. It shows a source table with columns 'SPID', 'SPGodStudPrograma', and 'SPSkGodPred'. Arrows indicate that data from these columns is being processed by the 'New Dimension Wizard: Level Attributes' interface. Specifically, the 'SPId' column maps to the 'Name' field, 'SPGodStudPrograma' maps to the 'Data Type' field, and 'SPSkGodPred' maps to the 'Length' field. The wizard interface shows the 'Level' set to 'StudProgramLevel' and the 'Define Level Attribute' section with 'Name' as 'SPId', 'Data Type' as 'NUMBER', 'Length' as '0', 'Precision' as '0', and 'Scale' as '0'. The 'Level Attributes' list on the right shows 'SPId', 'SPGodStudPrograma', and 'SPSkGodPred', with 'SPSkGodPred' highlighted. The 'Add', 'Update', and 'Remove' buttons are visible at the bottom of the wizard.

# Kreiranje dimenzija

New Dimension Wizard: Level Attributes

Pick level, click Add to create level attributes.

Level:  
PredmetLevel

Define Level Attribute

Name:

Data Type:  
NUMBER

Length:  
0

Precision:  
0

Scale:  
0

Description

Level Attributes

- PredID
- PredSPid
- PredNazivPredmeta
- PredBrojSemestara
- PredPredavanja
- PredLabVezbe
- PredAudioVezbe**

Add Update Remove

Cancel Help Back Next Finish

# Kreiranje dimenzija

New Dimension Wizard: Hierarchies

Fill fields, click Add creates a new hierarchy.



Define Hierarchy

Name:

Prefix:

Description:

Hierarchies:

H1

Add

Update

Remove

Cancel

Help

< Back

Next >

Finish

# Kreiranje dimenzija

**New Dimension Wizard: Level Relationships**

Pick a hierarchy. Select levels for the hierarchy.  
Put parent levels on top of child levels.

Hierarchy:  
H1

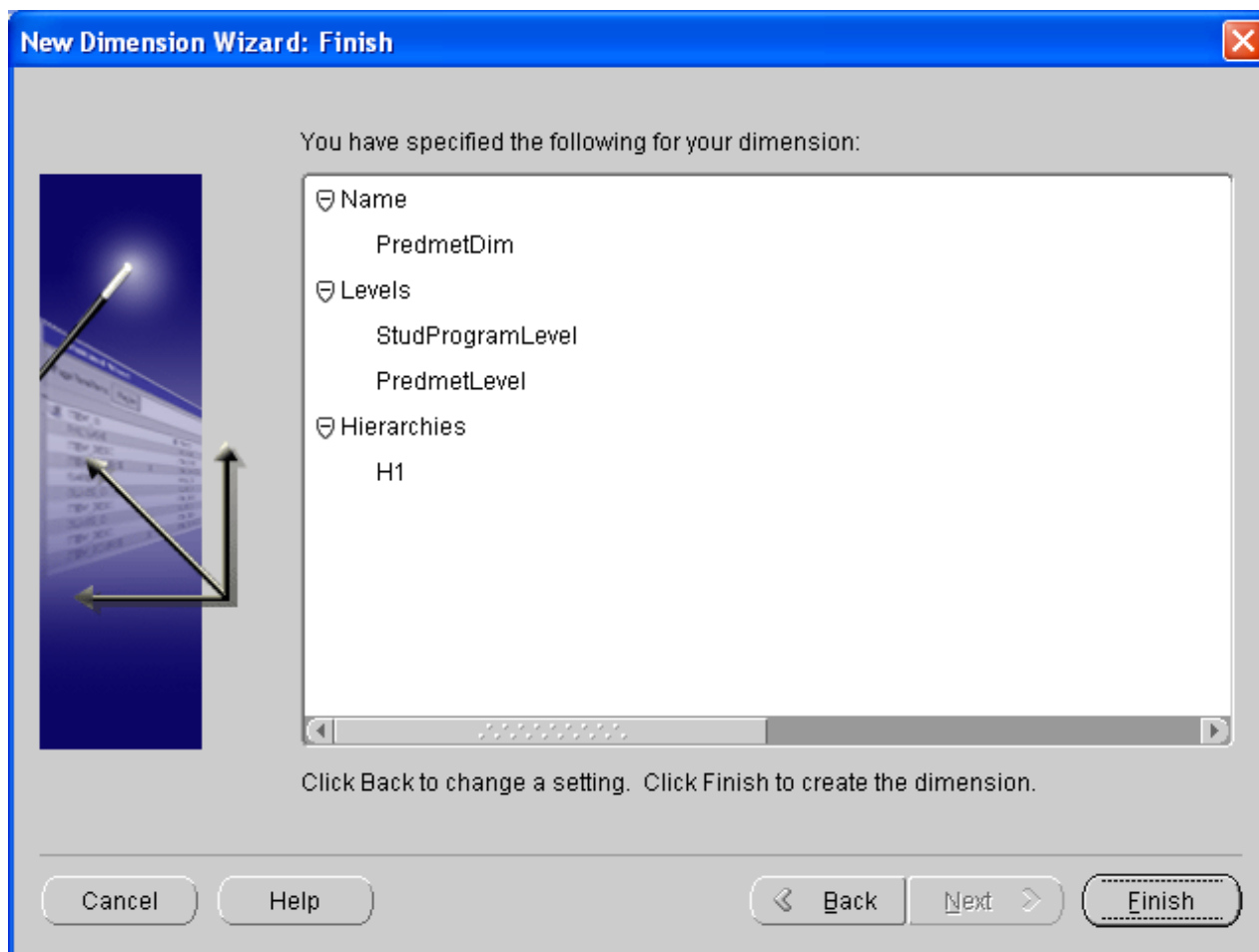
Available Levels:

Selected Levels:  
StudProgramLevel  
PredmetLevel

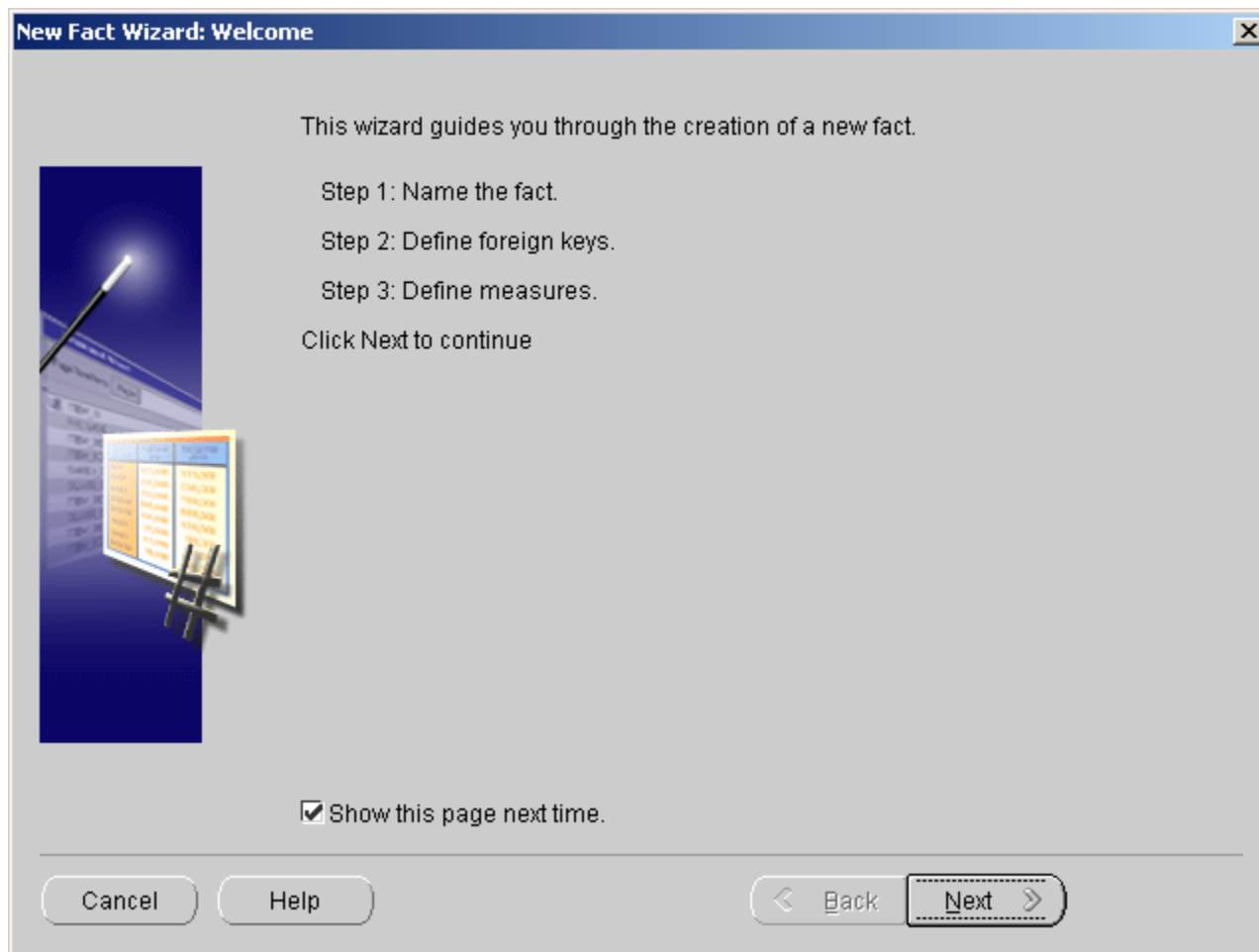
Cancel Help Back Next Finish



# Kreiranje dimenzija



# Kreiranje činjenice



# Kreiranje činjenice

New Fact Wizard: Name

Type in a name for the fact:

IzrsenaObavezaFact

Type in an optional description:

Kreiranje cinjenice pod nazivom IzrsenaObavezaFact

Cancel Help Back Next Finish



# Kreiranje činjenice

**New Fact Wizard: Define Foreign Keys**

Create a foreign key to a dimension

Dimension:

Level:

Unique Key:

List of Foreign Keys:

| Foreign Key | Dimension  | Level        | Foreign Key |
|-------------|------------|--------------|-------------|
| PredId      | PREDMETDIM | PREDMETLE... | PL_PREDID   |
| VreId       | VREMEDIM   | VREMELEVEL   | VL_VREID    |

☒ Create segmented unique key from foreign keys

# Kreiranje činjenice

New Fact Wizard: Define Measures

Current measures:

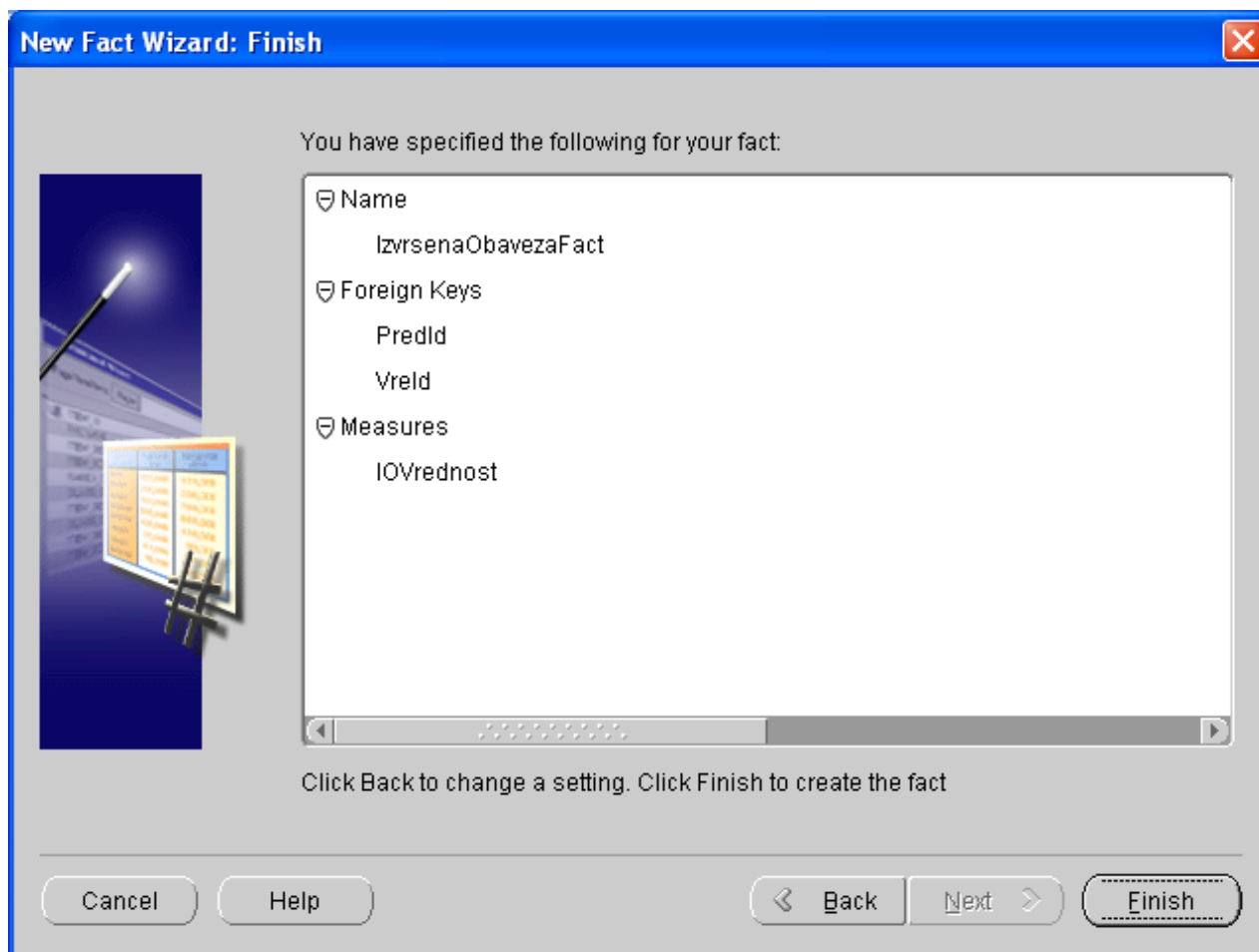
| Name       | Data Type | Length | Precision | Scale |
|------------|-----------|--------|-----------|-------|
| loVrednost | NUMBER    |        | 0         | 0     |

...

Add Remove

Cancel Help Back Next Finish

# Kreiranje činjenice



# Kreiranje činjenice

