

PYTHON PROJECT

Presented by BHARATH KUMAR

TITLE

- ❖ *Title: Saree Selection App*
- ❖ *Subtitle: A GUI-based purchase system using Python, Tkinter, Oracle 11g*
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PROJECT ORERVIEW

❖ *Objective:*

- *To build a user-friendly interface for purchasing sarees and storing the selection in an Oracle database using Python.*

❖ *Tech Stack:*

- *Python*
- *Tkinter (with ttkbootstrap)*
- *Oracle 11g*
- *cx_Oracle (DB Connector)*

HOW IT WORKS

Project Overview

- *The Saree Selection System is a GUI-based application built using Python (Tkinter + ttkbootstrap) that allows users to select sarees by choosing the type, color, border design, and price. It ensures user-friendly interaction and real-time feedback. All selected data is stored securely in an Oracle 11g database using the cx_Oracle library for backend connectivity.*

Working Process

- 1. User selects saree details from dropdowns and a price slider.*
- 2. Input validation checks for empty fields.*
- 3. On clicking "Purchase", the app connects to Oracle DB.*
- 4. Data is inserted using a SQL query with an auto-generated saree_id.*
- 5. Confirmation message is displayed upon successful purchase.*

FEATURES

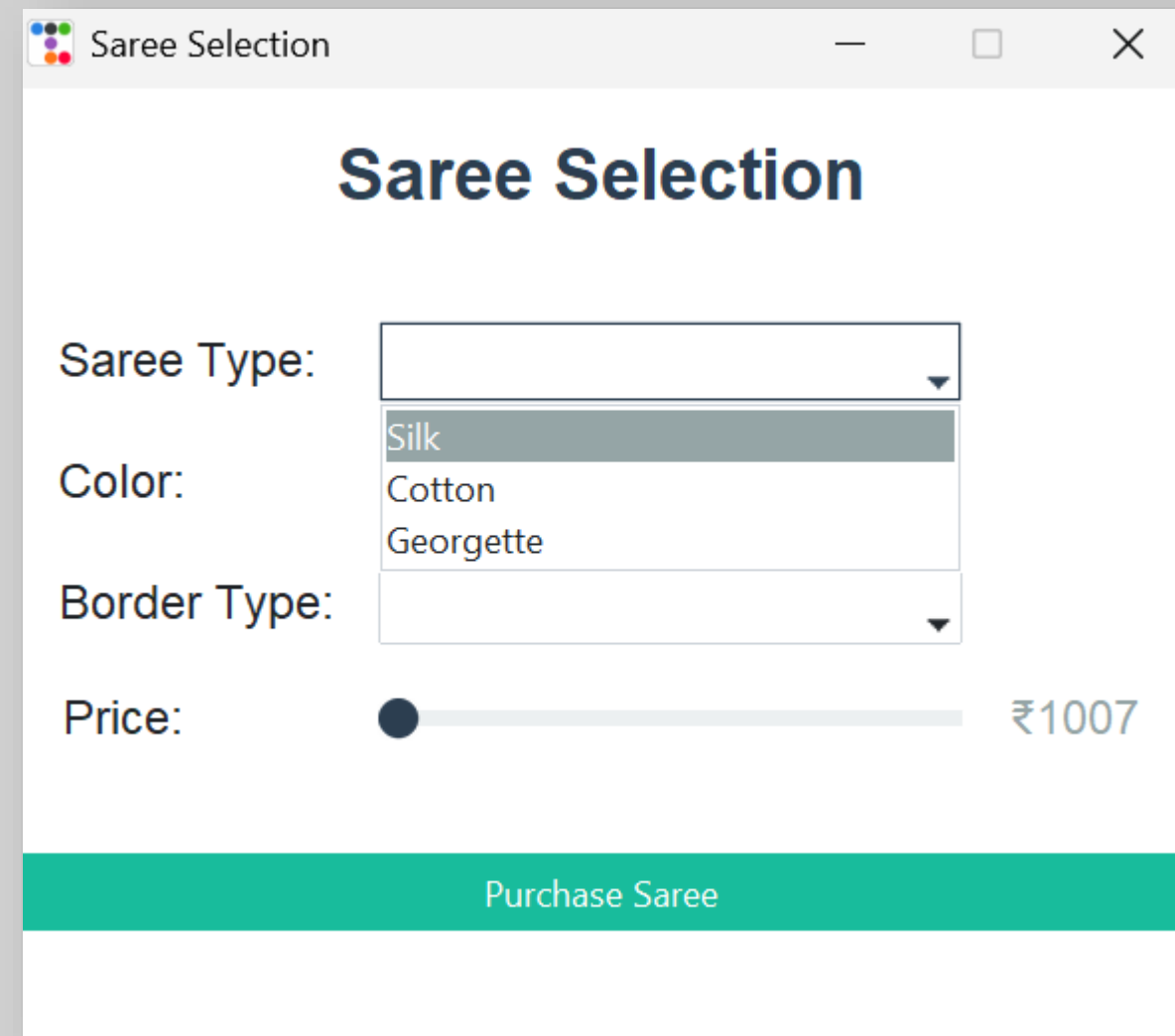
- ❖ *Dropdowns for saree type, color, border*
- ❖ *Price selection with dynamic scale*
- ❖ *Validation for required fields*
- ❖ *Real-time database insertion*
- ❖ *Success & error message alerts*

GUI DESIGN

- ❖ *Clean layout with ttkbootstrap*
- ❖ *Responsive and intuitive design*
- ❖ *Real-time feedback on price selection*

GUI DESIGN

❖ SAREE TYPE SELECTION

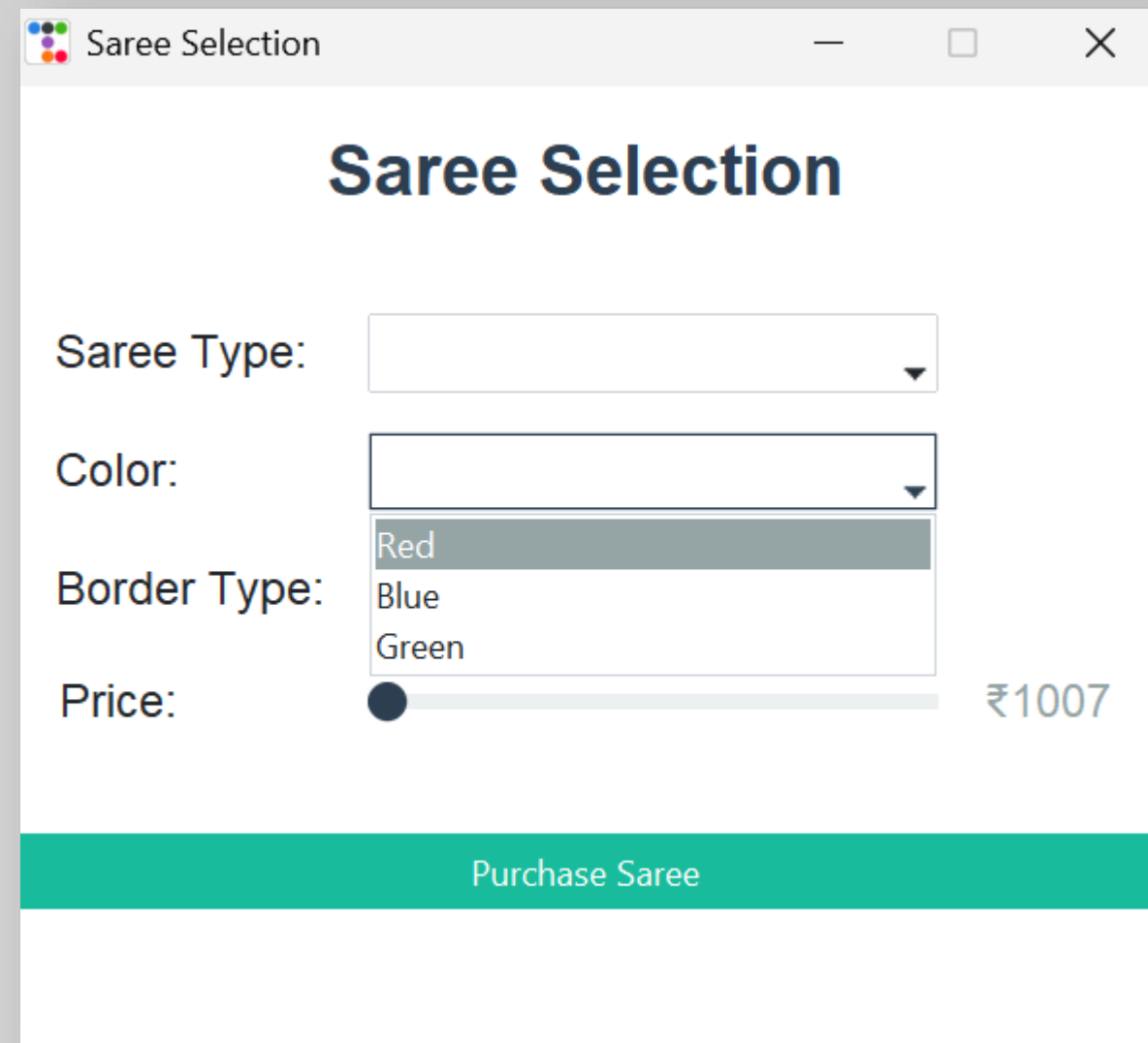


The screenshot displays a window titled "Saree Selection" with a standard OS title bar (minimize, maximize, close buttons). The window content includes:

- Saree Type:** A dropdown menu with "Silk" selected.
- Color:** A dropdown menu with "Cotton" selected.
- Border Type:** A dropdown menu.
- Price:** A slider control with a dark blue knob positioned at the right end, labeled "₹1007".
- Purchase Saree:** A prominent green button at the bottom.

GUI DESIGN

❖ *COLOR TYPE SELECTION*



The image shows a window titled "Saree Selection" with a standard Windows-style title bar (minimize, maximize, close buttons). The window content is as follows:

- Saree Selection** (Section Header)
- Saree Type:** A dropdown menu.
- Color:** A dropdown menu.
- Border Type:** A dropdown menu with a list of options: Red, Blue, and Green. The "Red" option is currently selected and highlighted.
- Price:** A horizontal slider control. The current value is ₹1007.
- Purchase Saree** (A large green button at the bottom of the window).

GUI DESIGN

❖ BORDER TYPE SELECTION

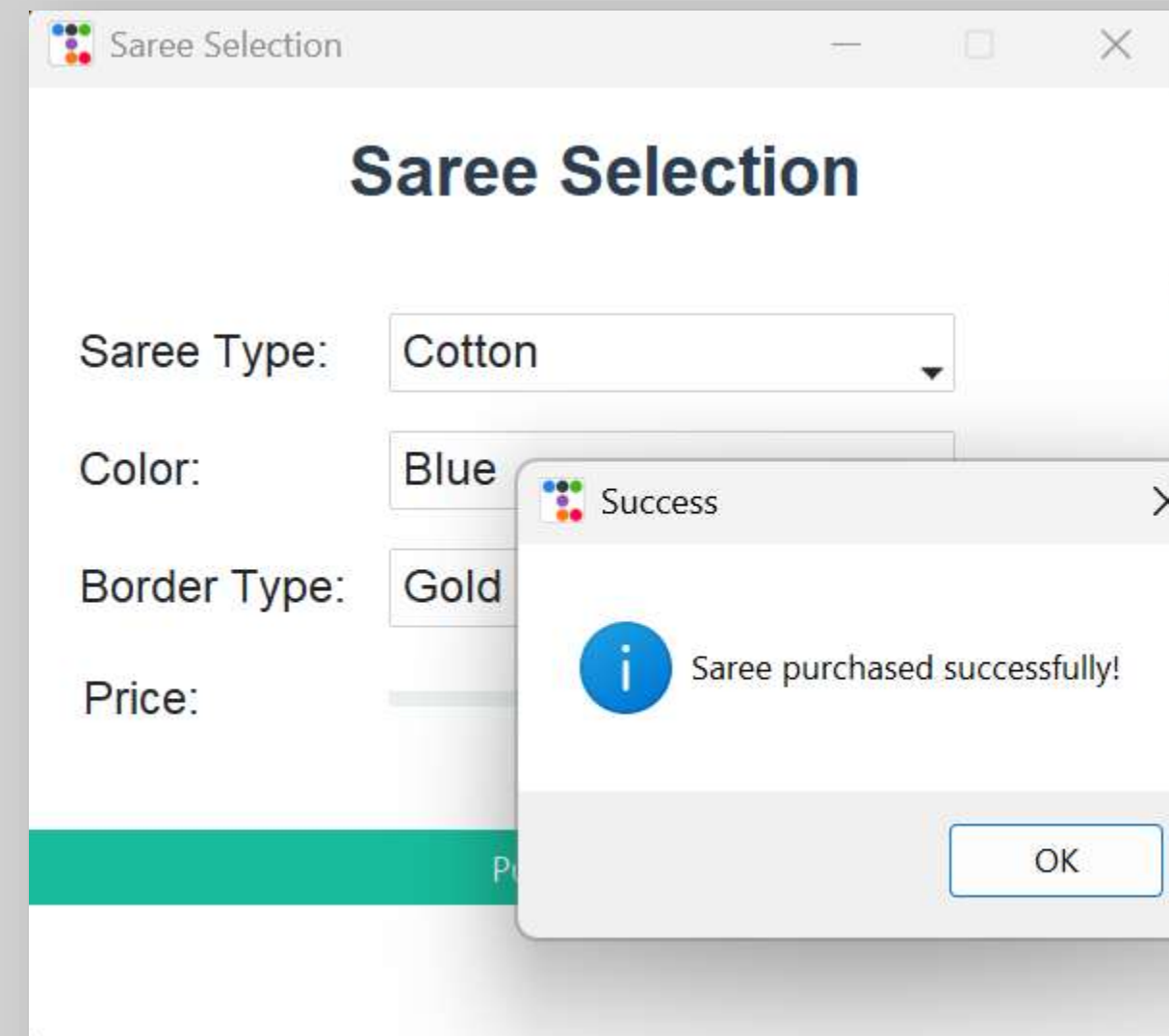
The image shows a screenshot of a Java Swing window titled "Saree Selection". The window contains a form with the following elements:

- Saree Type:** A dropdown menu.
- Color:** A dropdown menu.
- Border Type:** A dropdown menu with a list of options: Gold, Silver, and None. The "Gold" option is currently selected and highlighted.
- Price:** A text field displaying "₹1007".
- Purchase Saree:** A green button at the bottom of the form.

The window has a standard title bar with minimize, maximize, and close buttons.

GUI DESIGN

- ❖ AFTER PRICE SELECTION
- ❖ CLICK ON 'PURCHASE SAREE'
- ❖ IT WILL BE STORED IN THE DATABASE



DATABASE DESIGN

❖ *Table: saree_selection*

❖ *Columns:*

- *saree_id (NUMBER, Primary Key)*
- *saree_type (VARCHAR2)*
- *color (VARCHAR2)*
- *border_type (VARCHAR2)*
- *price (NUMBER)*

❖ *Sequence: saree_selection_seq*

KEY PY CODE SNIPPET

```
cursor.execute("""  
    INSERT INTO saree_selection (saree_id, saree_type, color,  
border_type, price)  
    VALUES (saree_selection_seq.NEXTVAL, :1, :2, :3, :4)  
""", (saree_type, color, border_type, price))
```

- Uses Oracle sequence for auto-increment
- Parameterized query for security

ERROR HANDLING

- ❖ *Validates empty fields before DB insert*
- ❖ *Catches Oracle DB errors with try-except*
- ❖ *Shows user-friendly pop-up messages*

CHALLENGES FACED

- ❖ *Oracle DB connection setup using cx_Oracle*
- ❖ *Styling and responsiveness in Tkinter*
- ❖ *Dynamic binding of price scale value*

LEARNING

- ❖ *Real-world use of GUI and databases*
- ❖ *Data validation and user experience*
- ❖ *Working with Oracle SQL in a Python environment*

FUTURE SCOPE

- ❖ *Add user login system*
- ❖ *Store saree inventory and stock*
- ❖ *Generate purchase receipts*
- ❖ *Migrate to cloud (AWS RDS)*

THANK You

- ❖ *Open to feedback & collaboration*
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