Slash-Phase6

Motivation

In today's e-commerce landscape, consumers face an overwhelming number of choices and often spend considerable time comparing prices across different websites to find the best deals. This process can be time-consuming and tedious. To address this issue, Slash was developed as a unified platform to help users quickly access the best prices from several popular e-commerce sites, saving both time and effort.

Introduction

Slash is a web application that scrapes product information from popular e-commerce websites such as Walmart, Target, BestBuy, and eBay. Users can search for specific products on Slash, and the system will return price information from each site, allowing users to compare and find the most favorable deals. This project was developed by a team of students at North Carolina State University (NCSU) with the aim of providing consumers an efficient and convenient shopping assistant tool.

Steps for Execution

1. **Clone the Repository**:

   Use the following command to clone the project repository locally:

   ```
   git clone <https://github.com/DFY-NCSU/slash-phase6.git>
   ```

2. **Install Dependencies**:

   Enter the project directory and install the required Python dependencies:

   ```
   cd slash-phase6
   pip install -r requirements.txt
   ```

3. **Configure Database**:

   Ensure that PostgreSQL is installed. In the `src/database.py` file, update the database connection settings with your PostgreSQL username and password.

Start the SQL with this command

- For Windows

```
pg_ctl -D your_path start
```

- For Mac

```
brew services start postgresql
```

- For Linux

```
sudo systemctl start postgresql
```

4. **Run the Backend Service**:

   Navigate to the `src` directory and start the backend service:

   ```
   cd src
   python main.py
   ```

5. **Launch the Frontend Interface**:

   In a new terminal window, return to the root project directory and run the Streamlit application:

   ```
   cd ..
   streamlit run slash_user_interface.py
   ```

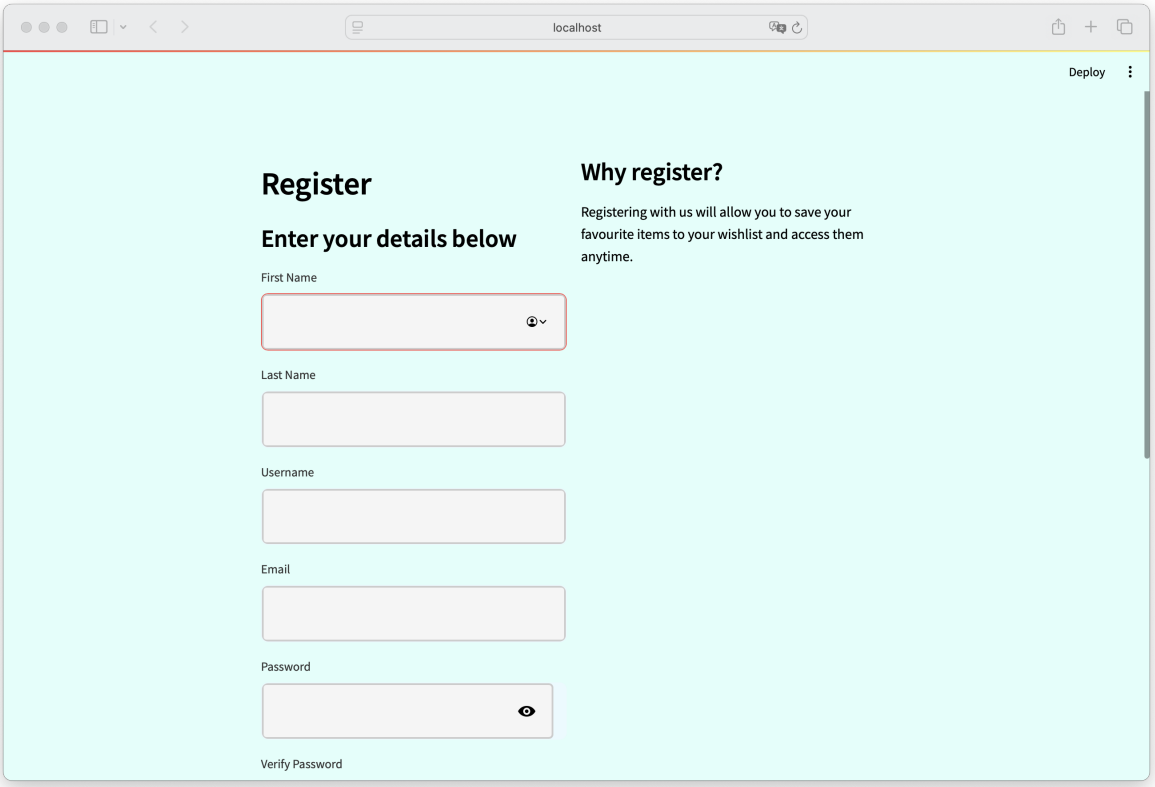
6. **Access the Application**:

   Open your browser and navigate to `http://localhost:8501` to access the user interface of the Slash application.

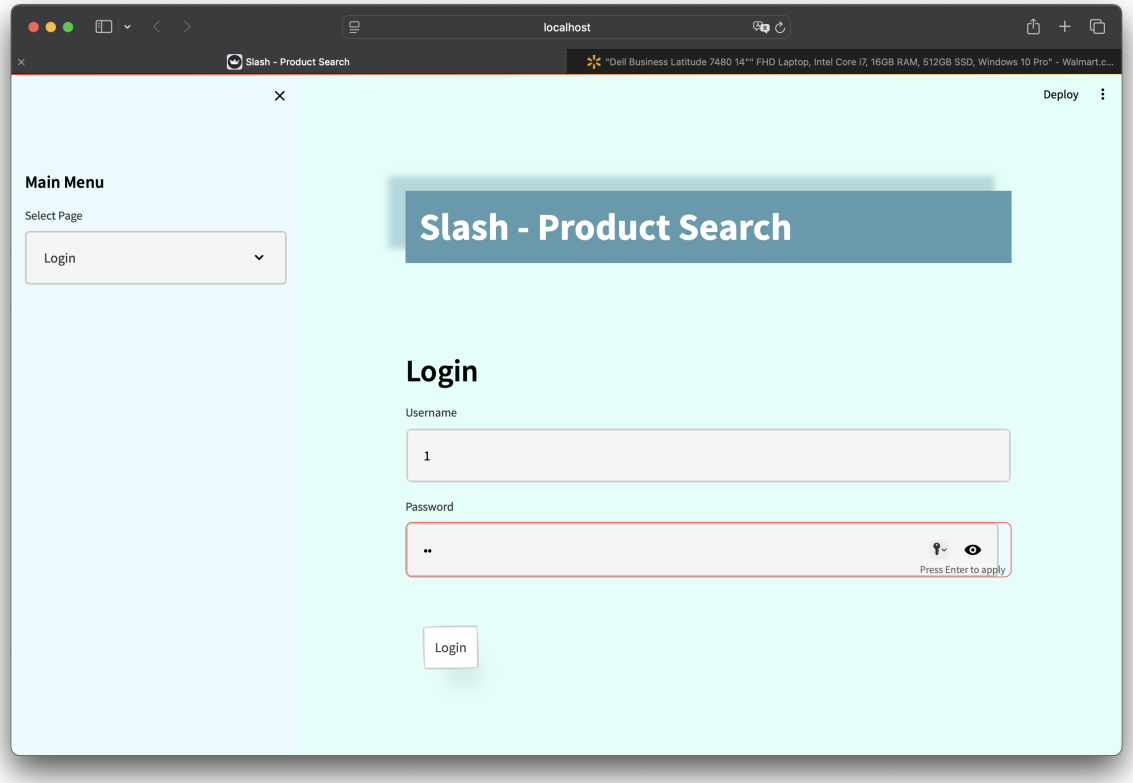
Following these steps, you will successfully run the Slash application and experience its powerful price comparison features.

Output

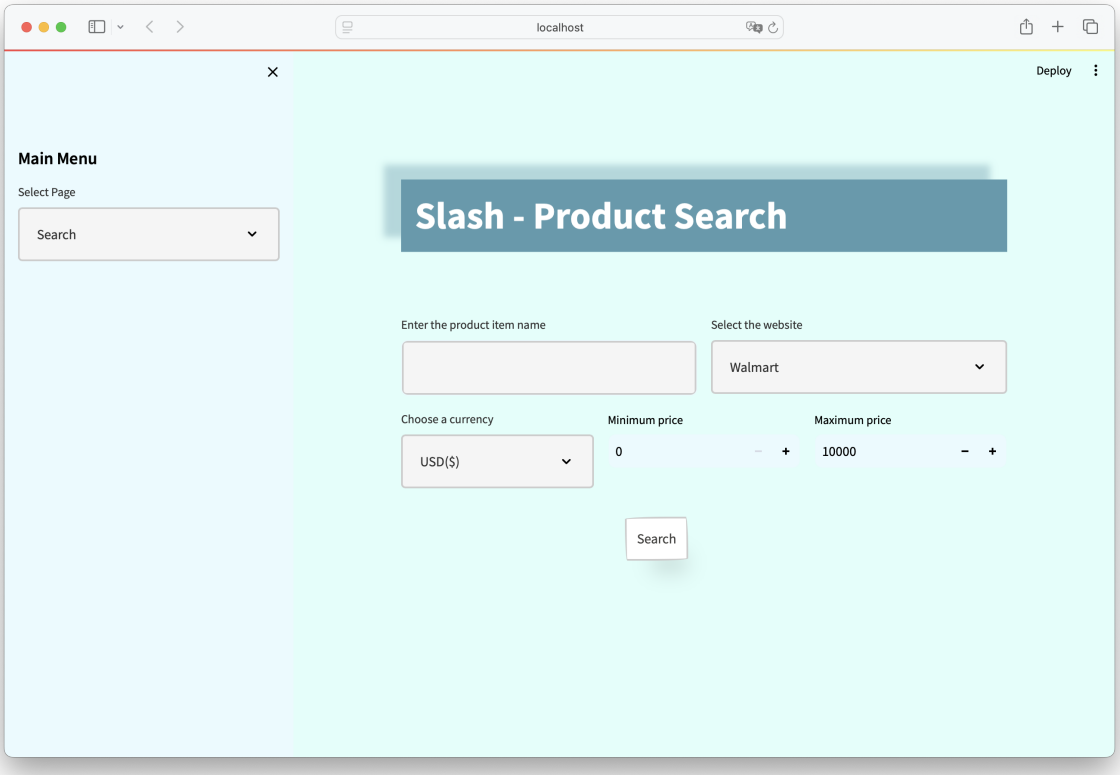
Register


localhost
Deploy
Register
Enter your details below
First Name
Last Name
Username
Email
Password
Verify Password
Why register?
Registering with us will allow you to save your favourite items to your wishlist and access them anytime.

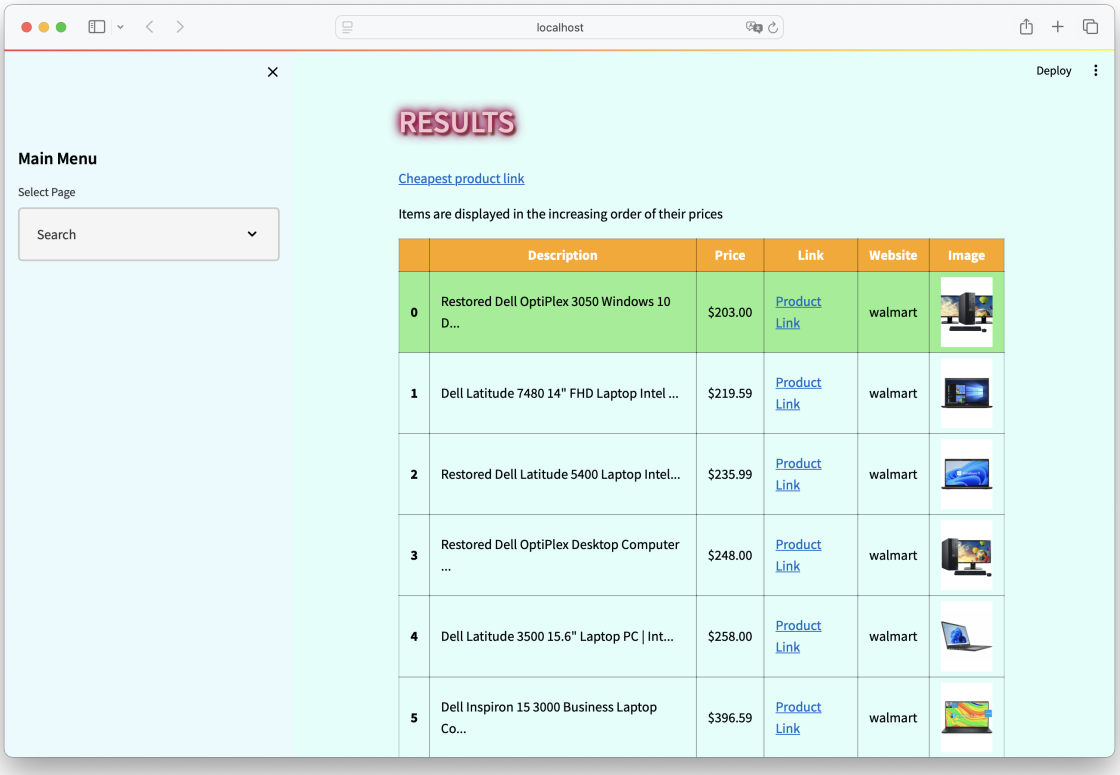
Login


localhost
Slash - Product Search
"Dell Business Latitude 7480 14"" FHD Laptop, Intel Core i7, 16GB RAM, 512GB SSD, Windows 10 Pro" - Walmart.c...
Deploy
Main Menu
Select Page
Login
Slash - Product Search
Login
Username
1
Password
Press Enter to apply
Login

Search Function

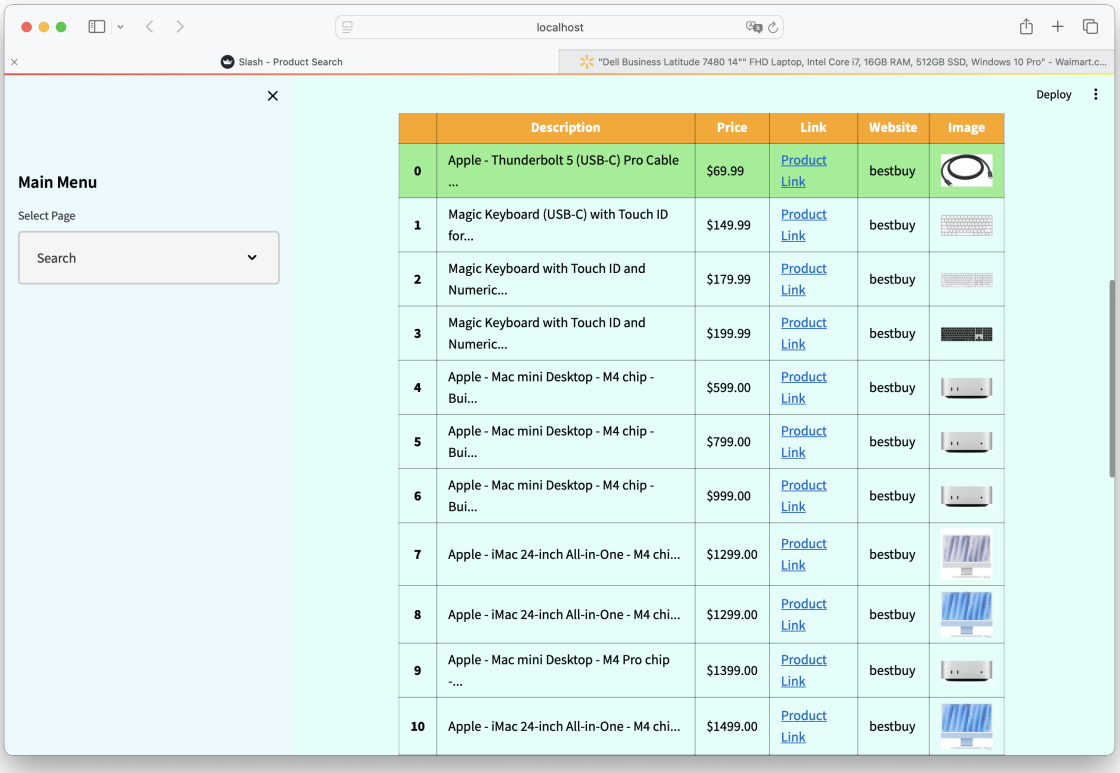


Search Results by walmart



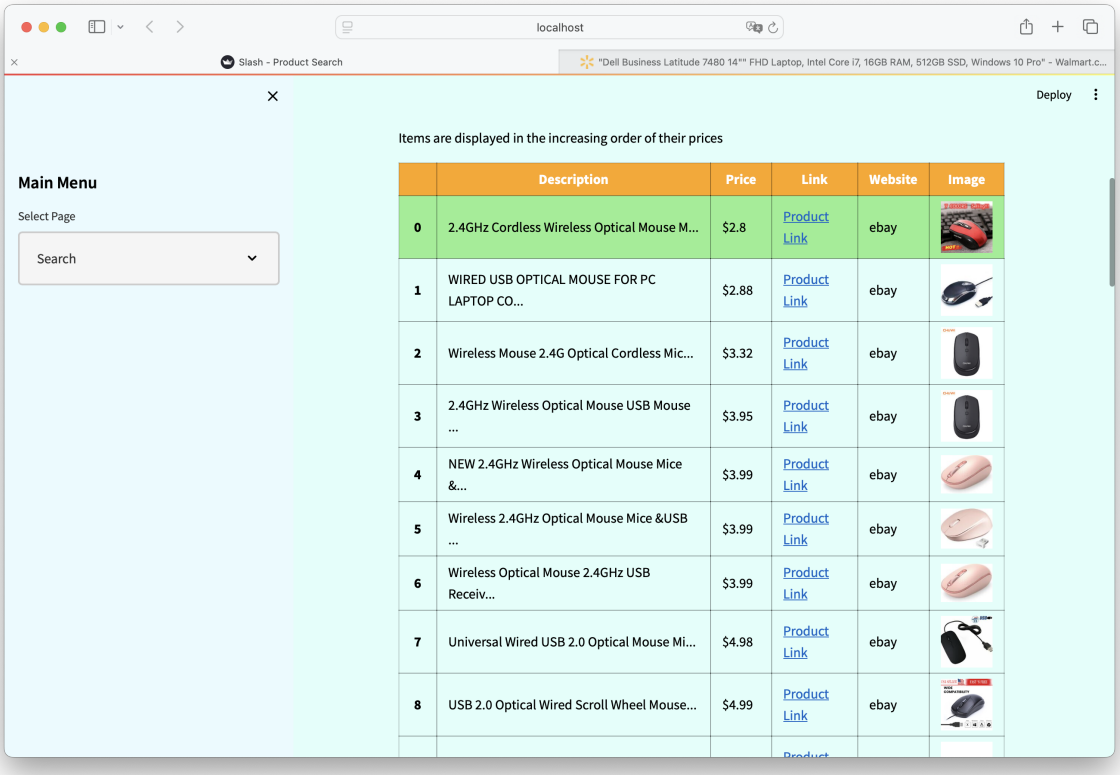
	Description	Price	Link	Website	Image
0	Restored Dell OptiPlex 3050 Windows 10 D...	$203.00	Product Link	walmart	
1	Dell Latitude 7480 14" FHD Laptop Intel ...	$219.59	Product Link	walmart	
2	Restored Dell Latitude 5400 Laptop Intel...	$235.99	Product Link	walmart	
3	Restored Dell OptiPlex Desktop Computer ...	$248.00	Product Link	walmart	
4	Dell Latitude 3500 15.6" Laptop PC | Int...	$258.00	Product Link	walmart	
5	Dell Inspiron 15 3000 Business Laptop Co...	$396.59	Product Link	walmart	

Search Results by bestbuy



	Description	Price	Link	Website	Image
0	Apple - Thunderbolt 5 (USB-C) Pro Cable ...	$69.99	Product Link	bestbuy	
1	Magic Keyboard (USB-C) with Touch ID for...	$149.99	Product Link	bestbuy	
2	Magic Keyboard with Touch ID and Numeric...	$179.99	Product Link	bestbuy	
3	Magic Keyboard with Touch ID and Numeric...	$199.99	Product Link	bestbuy	
4	Apple - Mac mini Desktop - M4 chip - Bui...	$599.00	Product Link	bestbuy	
5	Apple - Mac mini Desktop - M4 chip - Bui...	$799.00	Product Link	bestbuy	
6	Apple - Mac mini Desktop - M4 chip - Bui...	$999.00	Product Link	bestbuy	
7	Apple - iMac 24-inch All-in-One - M4 chi...	$1299.00	Product Link	bestbuy	
8	Apple - iMac 24-inch All-in-One - M4 chi...	$1299.00	Product Link	bestbuy	
9	Apple - Mac mini Desktop - M4 Pro chip -...	$1399.00	Product Link	bestbuy	
10	Apple - iMac 24-inch All-in-One - M4 chi...	$1499.00	Product Link	bestbuy	

Search Results by ebay



Third Party Dependencies

altair==4.2.2
anyio==3.3.4
asgiref==3.6.0
astor==0.8.1
attrs==23.1.0
base58==2.1.1
bcrypt==3.2.0
beautifulsoup4==4.10.0
blinker==1.6.2
cachetools==5.3.1
certifi==2021.10.8
cffi==1.16.0
charset-normalizer==2.0.7
click==7.1.2
CurrencyConverter==0.17.11
ebaysdk==2.2.0

ecdsa==0.18.0
entrypoints==0.4
fastapi==0.70.0
gitdb==4.0.10
GitPython==3.1.36
greenlet==3.0.0
h11==0.14.0
idna==3.3
importlib-metadata==6.8.0
Jinja2==3.1.2
jsonschema==4.19.0
jsonschema-specifications==2023.7.1
lxml==4.9.3
markdown-it-py==3.0.0
MarkupSafe==2.1.3
mdurl==0.1.2
nest-asyncio==1.5.1
numpy==1.26.0
packaging==23.1
pandas==2.1.0
passlib==1.7.4
Pillow==10.0.1
protobuf==3.20.1
psycopg2-binary==2.9.3
pyarrow==13.0.0
pyasn1==0.5.0
pycparser==2.21
pydantic==1.8.2
pydeck==0.8.1b0
Pygments==2.16.1
PyMySQL==1.0.2
pyshorteners==1.0.1
python-dateutil==2.8.2
python-jose==3.3.0
python-multipart==0.0.5
pytz==2023.3.post1
referencing==0.30.2
requests==2.31.0

rich==13.6.0
rpds-py==0.10.3
rsa==4.9
six==1.16.0
smmap==5.0.0
sniffio==1.2.0
soupsieve==2.2.1
SQLAlchemy==1.4.32
starlette==0.16.0
streamlit==1.27.2
tabulate==0.8.9
tenacity==8.2.3
toml==0.10.2
toolz==0.12.0
tornado==6.3.3
typing_extensions==4.8.0
tzdata==2023.3
tzlocal==5.0.1
urllib3==1.26.7
uvicorn==0.15.0
validators==0.22.0
watchdog==3.0.0
zipp==3.17.0

selenium == 4.25.0
fake_useragent == 1.5.1