Database System
Term Project

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Introduction

Introducing a Dynamic Database-Integrated Website

- Easy and effective management on your e-commerce page
- A comprehensive database with seven tables
- Quick inventory tracking with a simple interface
- Operations you can easily perform in the inventory: Add a product, Delete a product, Update product information

Members and Responsibilites

Mehmet Umut Gökdağ: 150200085	Backend operations optimization, Responsible table: Events
Mehmet Ali Balıkçı: 150200059	Frontend operations and UI views, Responsible table: Products
Hasan Taha Bağcı: 150210338	Backend operations optimization, Responsible table: Orders
Ömer Faruk Aydın: 150210726	Frontend operations, UI views Responsible table: Order Items
Muhammet Serdar Nazlı: 150210723	Database operations, Backend operations Responsible table: Inventory Items

Tables

1 USERS
Information about users

2 PRODUCTS
Characteristics of products

3 EVENTS
Users' transaction information

4 ORDER ITEMS
Information about orders in detail

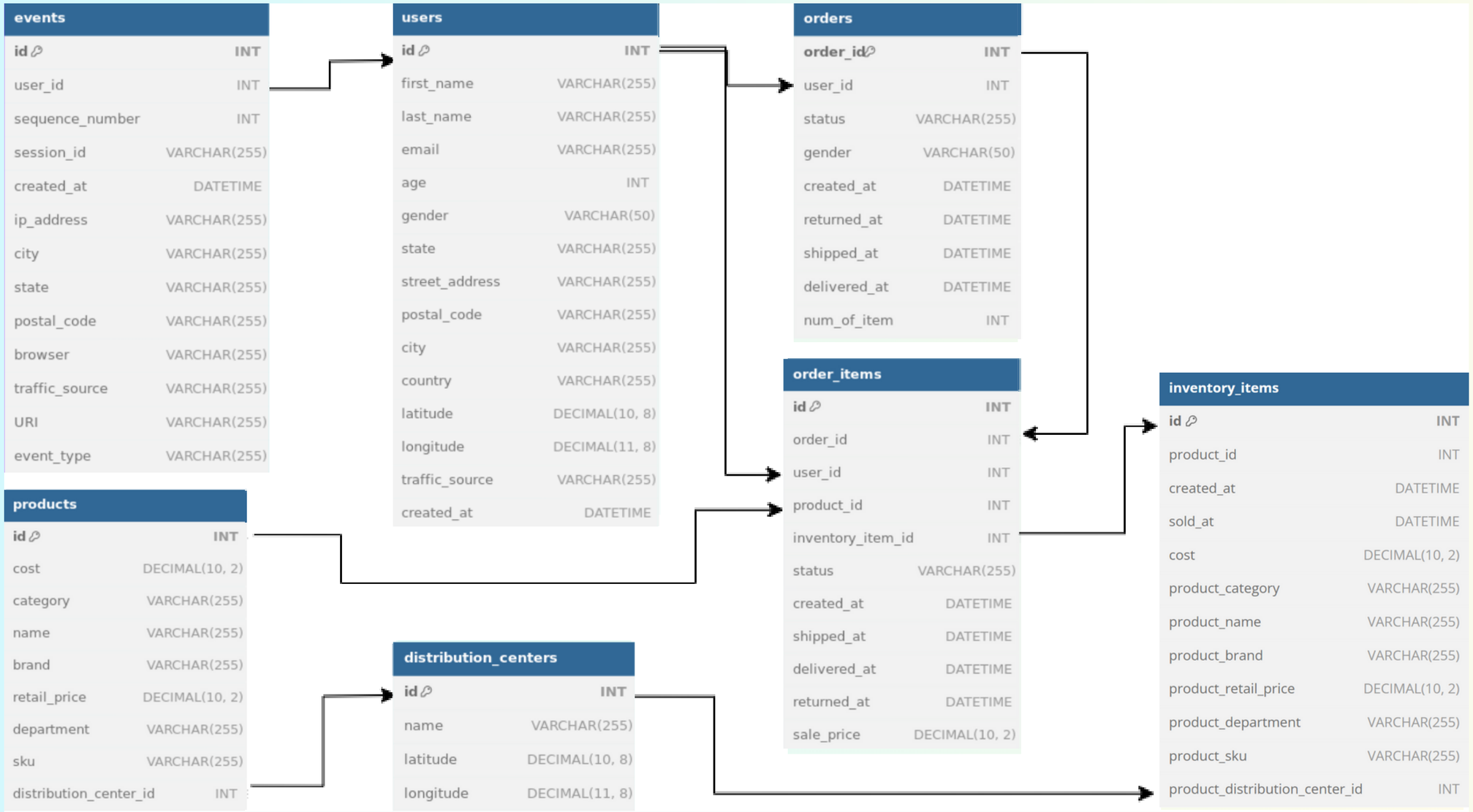
5 ORDERS
Features of orders less detailed

6 INVENTORY ITEMS
Contains inventory information by keeping product specifications

7 DISTRIBUTION CENTER

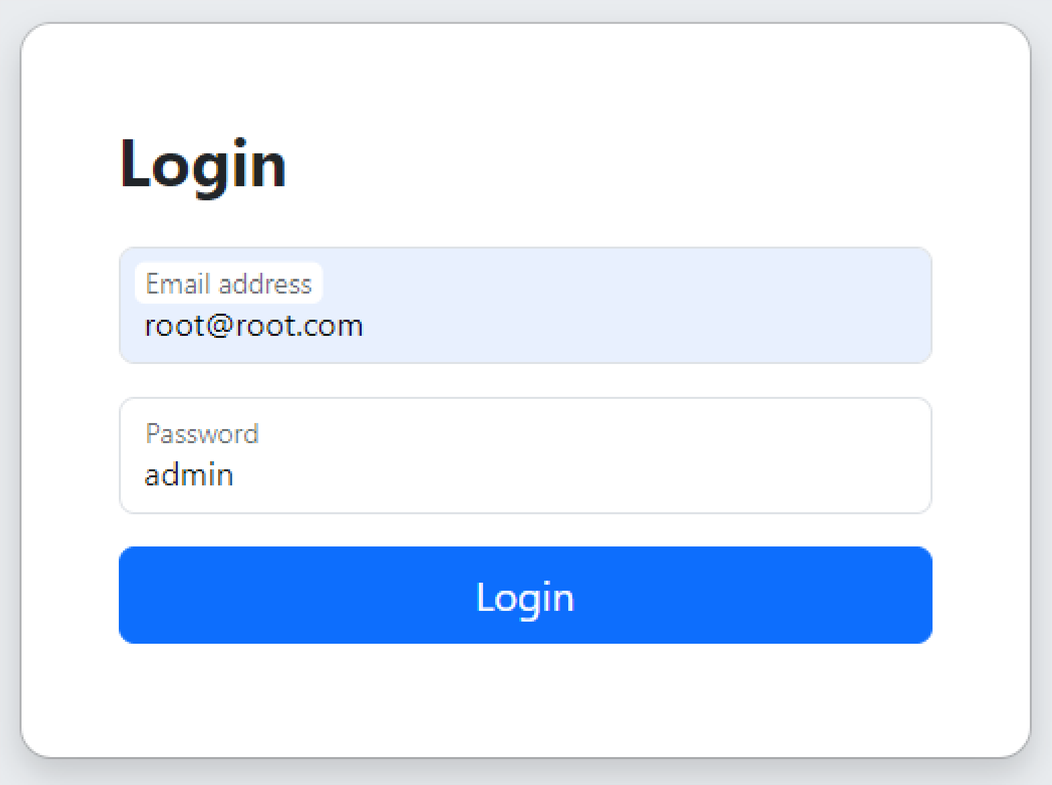
Brief information about distribution centers

Database Architecture



UI Views

Login Screen



UI Views

Home Screen

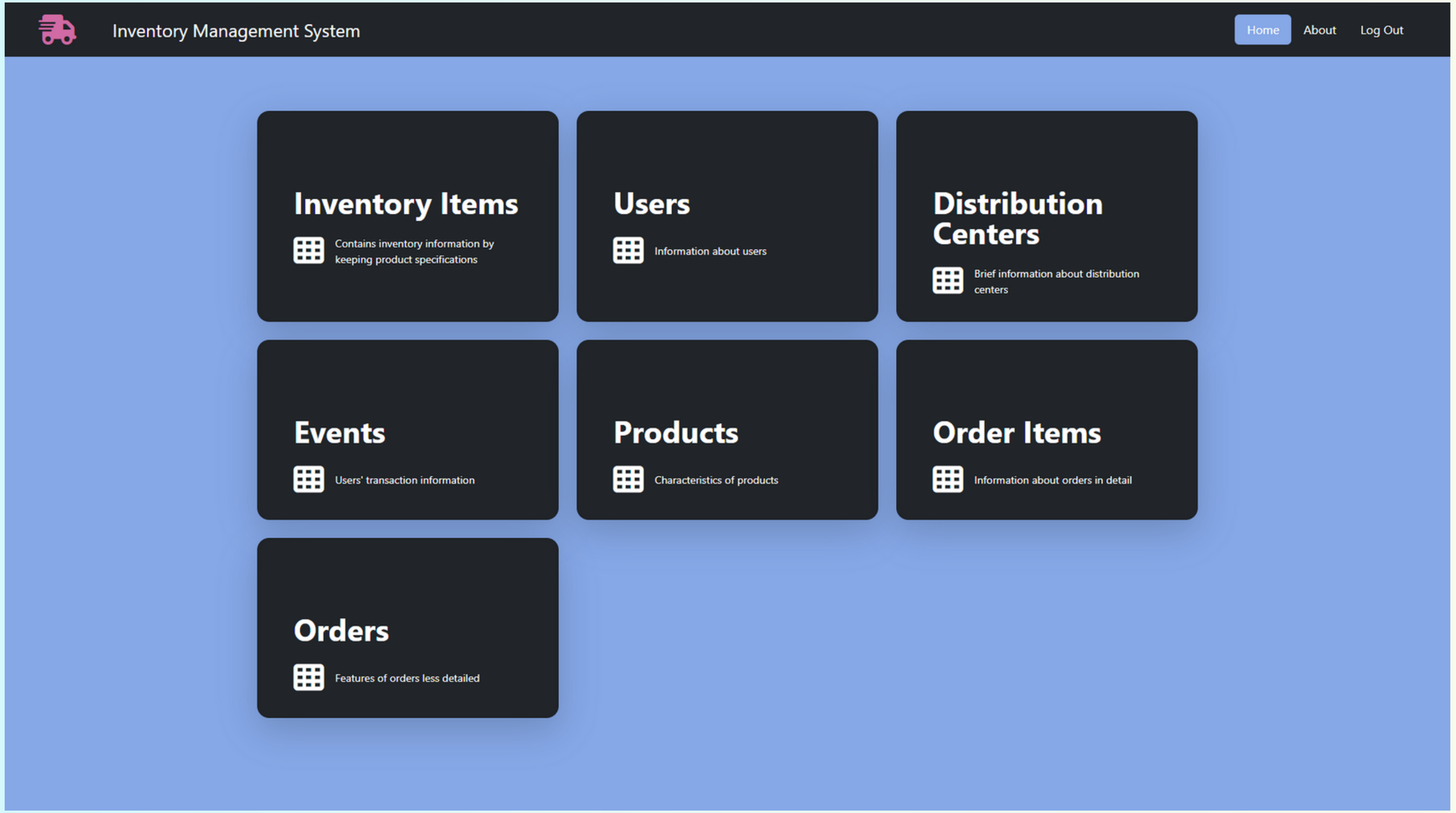


Table View

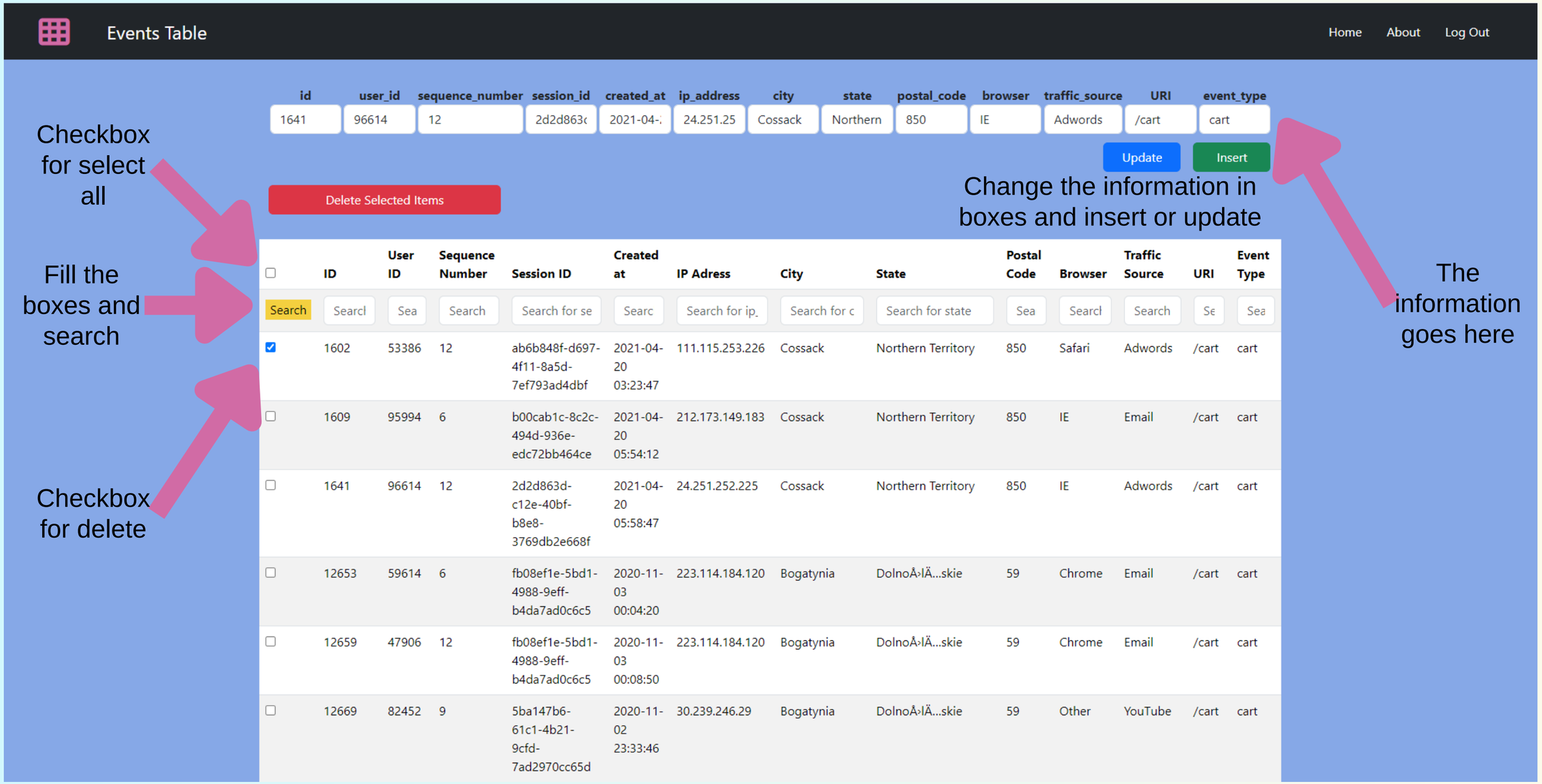
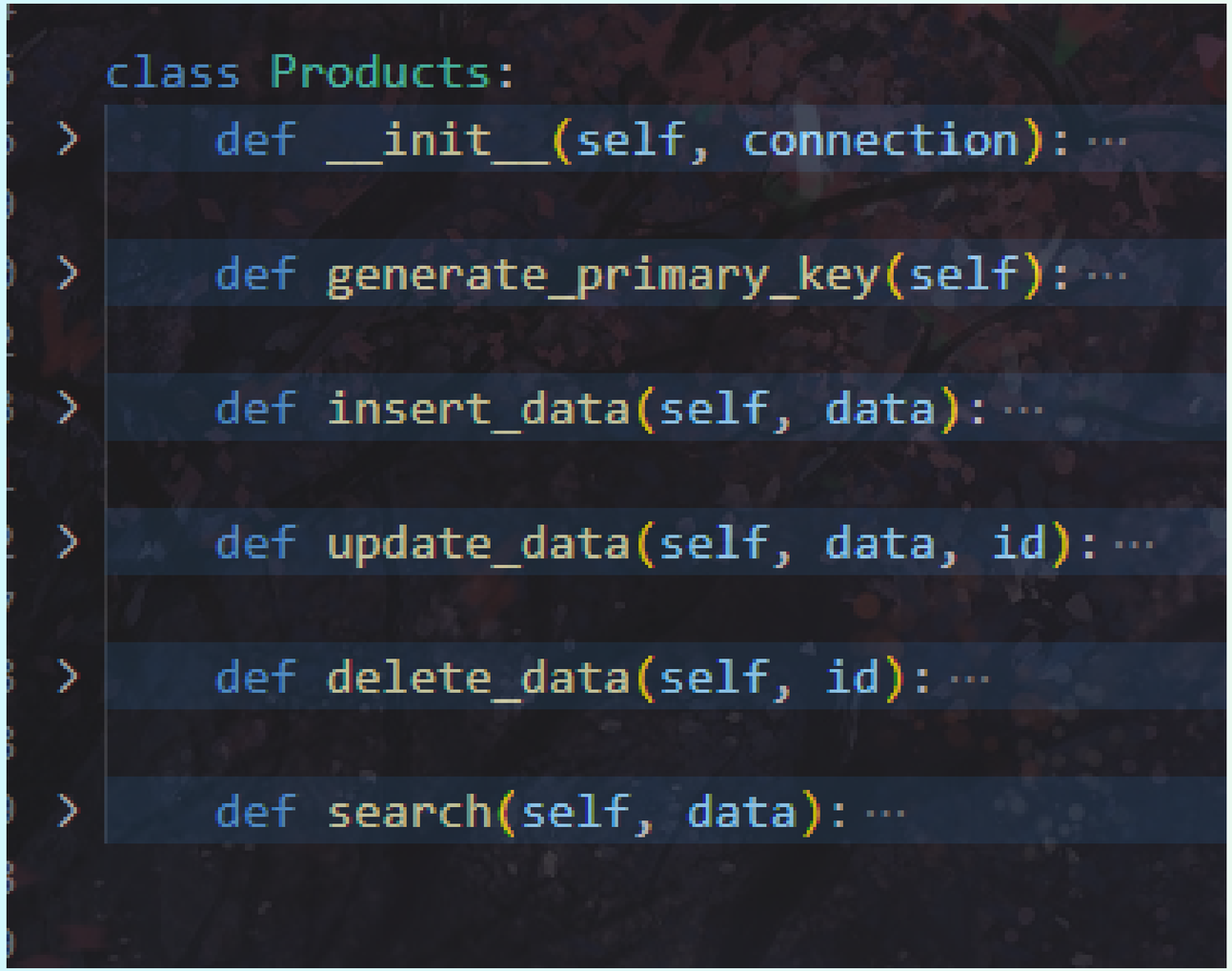

Events Table
Home
About
Log Out
id
user_id
sequence_number
session_id
created_at
ip_address
city
state
postal_code
browser
traffic_source
URI
event_type
1641
96614
12
2d2d863c
2021-04-.
24.251.25
Cossack
Northern
850
IE
Adwords
/cart
cart
Update
Insert
Delete Selected Items
Checkbox for select all
Fill the boxes and search
Checkbox for delete
Change the information in boxes and insert or update
The information goes here
ID
User ID
Sequence Number
Session ID
Created at
IP Adress
City
State
Postal Code
Browser
Traffic Source
URI
Event Type
Search
1602 53386 12 ab6b848f-d697-4f11-8a5d-7ef793ad4dbf 2021-04-20 03:23:47 111.115.253.226 Cossack Northern Territory 850 Safari Adwords /cart cart
1609 95994 6 b00cab1c-8c2c-494d-936e-edc72bb464ce 2021-04-20 05:54:12 212.173.149.183 Cossack Northern Territory 850 IE Email /cart cart
1641 96614 12 2d2d863d-c12e-40bf-b8e8-3769db2e668f 2021-04-20 05:58:47 24.251.252.225 Cossack Northern Territory 850 IE Adwords /cart cart
12653 59614 6 fb08ef1e-5bd1-4988-9eff-b4da7ad0c6c5 2020-11-03 00:04:20 223.114.184.120 Bogatynia DolnoÅ›lÄ...skie 59 Chrome Email /cart cart
12659 47906 12 fb08ef1e-5bd1-4988-9eff-b4da7ad0c6c5 2020-11-03 00:08:50 223.114.184.120 Bogatynia DolnoÅ›lÄ...skie 59 Chrome Email /cart cart
12669 82452 9 5ba147b6-61c1-4b21-9cfd-7ad2970cc65d 2020-11-02 23:33:46 30.239.246.29 Bogatynia DolnoÅ›lÄ...skie 59 Other YouTube /cart cart

Table Operations

Search	Performs a search across multiple columns simultaneously and displays the rows containing data that start with the entered input.
Insert	Creates a new row containing the entered data and generates a new primary key id by adding one to the highest existing id number.
Update	Allows direct editing of any clicked row in the database by directly accessing the relevant cells. The modified data is updated upon pressing a button.
Delete	Multiple rows can be selected using checkboxes next to them and can be deleted at once by pressing the delete button.

Note: Update and Delete methods can only be executed if the modified data is not used as a foreign key in another table or if it complies with other database constraints.

Code Part


class Products:
def __init__(self, connection):
def generate_primary_key(self):
def insert_data(self, data):
def update_data(self, data, id):
def delete_data(self, id):
def search(self, data):

Challenges and Solutions

Integration: Seamlessly integrating the database with the frontend and other systems like authentication and table operations.

Security: Use robust algorithms like SHA-256 to securely encrypt admin passwords before storing them in database.

User Experience: Creating a user-friendly and responsive interface for various devices.

THANKS FOR LISTENING