Endterm CS -2120

1. Creating a python database (Postgresql)

Write down several SQL commands, on the basis of which you will create a full-fledged database containing tables, fields and records.
What you need to do:
• Creation of a database of the online store "Stationery";
• Add two tables: Buyers and Products;
• The "Products" table should contain the following fields: ID, price, number of units, name, description;
• The "Buyers" table should contain the following fields: user ID, surname, first name, patronymic, age, email address, phone number, purchase receipt number, purchase date;
• Add 5 new products to the "Products" table;
• Adding 5 new records to the table;
• Make a selection from the "Buyers" table and display the buyers who have made a purchase of goods in the last 3 days;
• Make a selection from the "Products" table and sort the products in ascending order of price.

2. Creating a web page – FastApi

Using FastApi, you need to make a web page that combines:
1. Forms with a text field
2. List of messages numbered from 1
The page connects to the server via WebSocket.
Using the form, you can send a message to the server, where it will be accepted and the serial number of this message will be added.
Next, a message with a serial number is sent to the page and displayed in the list.
When the page is reloaded, the numbering data is lost and starts at 1.
The page should be dynamic, handle all actions without reloading. This means that when sending a message to the server via a websocket, the page should not be reloaded.
Interaction with the server via websocket must be implemented using JSON. The format and naming of the fields is not important. you can use any.

3. Develop a python program to implement Bayesian classification model for the following dataset and classify the given test vector:

Age	Loan	Class (Defaulter)
25	40000	0
35	60000	0
45	80000	0
20	20000	0
35	120000	0
52	18000	0
23	95000	1
40	62000	1
60	100000	1

Age	Loan	Class (Defaulter)
48	220000	1
33	150000	1
48	142000	?