L.J. Institute of Engineering & Technology, Ahmedabad									
FCSP-2 Practice Book_2025									
Note: The Practice Book is for reference only, LJU Test paper may not be compulsory set from this									
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
1	1	Which of the following functions can be used to fill all null values in a data frame?	A	1		fillna()	filled()	fillnull()	filler()
2	1	Which attribute of dropna() can be used to select the columns from which null values are to be considered for removing rows?	C	1		thresh	how	subset	superset
3	1	Which of the following pandas functions is used to generate cross tabulation?	D	1		crosstabulation	cross_tabulation	cross_tab	crosstab
4	1	Which of the following DataFrame attributes is used to return one or more specified row(s)?	C	1		locate	location	loc	find
5	1	Which of the following attributes can be used to show the number of rows and columns in a Pandas dataframe?	D	1		size	info	describe	shape
6	1	Which of the following is not displayed by the Pandas DataFrame info function?	D	1		column names	non-null count	data types	column average
7	1	Which of the following is not displayed by the Pandas DataFrame describe function?	C	1		count	mean	correlation	std
8	1	What does it indicate if the corr() function shows correlation as 1 between any two columns of the DataFrame?	A	1		perfect correlation	good correlation	bad correlation	none of these
9	1	Which of the following is an example of qualitative data?	B	1		mean	gender	median	mode
10	1	Which of the following is an example of quantitative data?	B	1		eye colour	weight	skin colour	names
11	1	What does DataFrame.dropna(how='all') do?	A	1		drops those rows from the DataFrame which contain all null values	drops all rows from the DataFrame	drops even numbered rows from the DataFrame	drops odd numbered rows from the DataFrame
12	1	A data point that differs significantly from other observations is known as	D	1		mean	median	mode	outlier
13	1	Which of following pandas functions can be used to display the specified number of rows from the beginning of the dataset?	A	1		head()	tail()	begin()	end()
14	1	Which of following pandas functions can be used to display the specified number of rows from the end of the dataset?	B	1		head()	tail()	begin()	end()
15	1	Which of the following represents each data sample as polyline connecting parallel lines where each parallel line represents an attribute of that data sample?	A	1		parallel coordinates	parallelogram	straight lines	long lines
16	1	What is the output of the code shown below? import pandas as pd import numpy as np df=pd.DataFrame([[0,1.0,2.0,np.nan,5],[2.0,0,1.0,5.0,np.nan],[5.0,0,1.0,np.nan,5.0]]) df.dropna() print(df.loc[1,3])	B	1		0	5.0	1.0	2.0
17	1	What is the output of the code shown below? import pandas as pd import numpy as np df=pd.DataFrame([[0,1,2,np.nan,5],[2,0,1,5,np.nan],[5,0,1,np.nan,5],[2,0,1,np.nan,np.nan]]) df=df.drop_duplicates(subset=[1,2]) df=df.drop_duplicates(subset=[4]) df.dropna(thresh=2,axis=1) print(df.shape)	C	1		(5, 2)	(2, 3)	(2, 5)	(3, 2)
18	1	What type of Error the following code produces? import pandas as pnd pnd.Series([1,2], index= ['a','b','c'])	D	1		Syntax	Index	Key	Value
19	1	To remove multiple values from the Pandas dataframe and to keep only the first occurrence values, what will be the correct syntax?	C	1		df.drop_duplicate()	df.drop()	df.drop_duplicates()	df.dropduplicates()
20	1	From a Pandas series 's', if we need to extract indices (1,5,7,12) what will be the syntax used?	B	1		s (1,5,7,12)	s ([1,5,7,12])	s.index([1,5,7,12])	s.index(1,5,7,12)
21	1	What is the method used to calculate the mean of a numeric column in a DataFrame ?	D	1		average()	calculate_mean()	get_mean()	mean()
22	1	What is the output of the below code? import pandas as pd import numpy as np df=pd.DataFrame({"a":[1,2,np.nan,3,4],"b":[1,5,np.nan,2,1]}) df=df.drop_duplicates(subset="b") df.dropna() df.fillna(20,inplace=True) print(df.shape[0])	A	1	LJU 2023	4	3	2	1
23	1	What is the output of the below code? import pandas as pd import numpy as np df=pd.DataFrame([[1,2,3,4,5],[2,1,3,4,5],[np.nan,np.nan,np.nan,np.nan,np.nan]]) df.dropna(thresh=3,axis=1,inplace=True) print(df.shape[1])	A	1	LJU 2023	0	1	2	3

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24	1	What is the output of the below code? import pandas as pd import numpy as np df=pd.DataFrame([[1,2,3,4,5],[2,1,3,4,5],[np.nan,np.nan,np.nan,np.nan,np.nan]]) df.drop(1,inplace=True) df=df.dropna() print(df.shape[0])	A	1	LJU 2023	1	2	3	0
25	1	Create a Pandas DataFrame from the following table and write code to remove all rows from this table containing at least one NaN value name region sales expenses 0 William NaN 50000.0 42000.0 1 Emma North 52000.0 43000.0 2 Sofia East NaN NaN 3 Markus NaN NaN NaN 4 Edward West 42000.0 38000.0 5 Thomas West 72000.0 39000.0 6 Ethan South 49000.0 42000.0 7 NaN NaN NaN NaN 8 Arun West 67000.0 39000.0 9 Anika East 65000.0 50000.0 10 Paulo South 67000.0 45000.0		3					
26	1	Create a Pandas DataFrame from the following table and write code to remove all rows from this table only if all of their values are NaN name region sales expenses 0 William NaN 50000.0 42000.0 1 Emma North 52000.0 43000.0 2 Sofia East NaN NaN 3 Markus NaN NaN NaN 4 Edward West 42000.0 38000.0 5 Thomas West 72000.0 39000.0 6 Ethan South 49000.0 42000.0 7 NaN NaN NaN NaN 8 Arun West 67000.0 39000.0 9 Anika East 65000.0 50000.0 10 Paulo South 67000.0 45000.0		3					
27	1	Create a Pandas DataFrame from the following table and write code to drop all columns containing NaN name region sales expenses 0 William NaN 50000.0 42000.0 1 Emma North 52000.0 43000.0 2 Sofia East NaN NaN 3 Markus NaN NaN NaN 4 Edward West 42000.0 38000.0 5 Thomas West 72000.0 39000.0 6 Ethan South 49000.0 42000.0 7 NaN NaN NaN NaN 8 Arun West 67000.0 39000.0 9 Anika East 65000.0 50000.0 10 Paulo South 67000.0 45000.0		3					
28	1	Write Python code to remove outliers from any given DataFrame.		4					

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29	1	Consider the following data:
		data = {
		"A": ["TeamA", "TeamB", "TeamB", "TeamC", "TeamA"],
		"B": [50, 40, 40, 30, 50],
		"C": [True, False, False, False, True]
		}
		
		Convert this to a Pandas DataFrame and remove duplicate rows from it. Reset index values.
				4					

30	1	Consider the following autompg dataset: https://raw.githubusercontent.com/Jovita7/Data-Analysis-and-Visualization/main/auto-mpg.csv Write Python code to convert it to a DataFrame and remove mpg and cylinders columns from it		3					
31	1	Use the file heights_weights.csv (https://raw.githubusercontent.com/Jovita7/Data-Analysis-and-Visualization/main/heights_weights.csv) which contains 10000 non-null values for heights and weights. The Male column shows 1 if the person is a Male and 0 if the person is a Female. 1. Convert this file into a pandas Data Frame. (0.5 marks) 2. Display basic information like memory and data types for this data frame. (0.5 marks) 3. Display basic statistics like mean, std, quartiles, etc. for this data frame. (0.5 marks) 4. Create a correlation table for the data frame and comment about what kind of correlation is there between Height and Weight. (0.5 marks) 5. Do Height and Weight contain any outliers? (1 mark)		3					
32	1	Use the file ipl-matches.csv which contains data of all the IPL matches from year 2008 to 2022. Read this csv file and display the basic information like memory and data types for this data frame. Write python code for the following cases: 1. List out all matches gone in superover. 2. How Many Matches won by Chennai Super Kings at Kolkata. 3. In How Many Matches MS Dhoni is Player of Match Vs Mumbai Indians. 4. Display list of all matches in which Gujarat Titans won the Toss and Elected to Bat and won the match. 5. Display list of all matches won by Gujarat Titans.		5					
33	1	Use the file spotify.csv 1.Convert this file into a pandas Data Frame. (0.5 marks) 2.Display basic information like memory and data types for this data frame. (0.5 marks) 3.Display basic statistics like mean, std, quartiles, etc. for this data frame. (0.5 marks) 4.Create a correlation table for the data frame and comment about what kind of correlation is there between danceability and energy (0.5 marks) 5.Display first five rows for this data frame.(0.5 marks) 6.Display last five rows for this data frame. (0.5 marks) 7.Display the rows between 15 to 39 for this data frame. (0.5 marks) 8.Display the data only for last five rows and last five columns for this data frame. (0.5 marks) 9.Display the shape for this data frame. (0.5 marks) 10.Display the sum of NULL values for all the columns. (0.5 marks) 11.Remove first 3 columns from this Data Frame. (0.5 marks) 12.Remove first 10 rows from this Data Frame. (0.5 marks) 13.After removing first 3 columns and first 10 rows from this data frame find outliers for the column popularity. (1 marks) 14.After removing first 3 columns and first 10 rows from this data frame remove outliers for the column energy then display the data frame. (1 marks) 15.Display cross tabulation between time_signature and track_genre for actual Data Frame. (1 marks)		9					

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34	1	Read this csv file car data.csv and display the basic information like memory and data types for this data frame. Write Python Code for the following cases: 1.How Many ritz car are there with kms driven more than 30000km. 2.How many Petrol cars are of the year 2017 and whose selling price > 10 lakhs. 3.How many swift cars are there with selling price < 4 Lakhs. 4.How many Automatic Transmission Petrol Car are of the year 2015 whose selling price is > 10 Lakhs. 5.List out Vehicles with Automatic Transmission and selling price < 1 Lakh. 6.How Many Petrol Vehicles are there with kms driven more than 50000kms and Year is between 2010 to 2015(both Year included). 7.List out the cars whose price difference between present price and selling price is > 15 lakhs. 8.How many Petrol vehicles are there whose kms driven < 5000km and selling price < 50000.		9	LJU 2024				
35	1	1. Load the dataset into a pandas DataFrame (data_result.csv) and answer the following questions. 2. View the first few rows of the dataset 3. Check the shape of the dataset 4. View the first last rows of the dataset 5. Get summary statistics of numerical columns 6. Get summary statistics of numerical columns with 0.58 and 0.87 percentiles 7. Get summary statistics of all types of columns 8. Information of all columns 9. Check for missing values 10. Removing duplicates if duplicates 11. List out female students who have greater than 7 spi in all semesters. 12. Find number of students those who have greater than 8 spi in all 5 semesters. 13. Find outliers of sem 4 result. Also represent statistical analysis with visualization.(boxplot)		9					
36	1	Use the file movies.csv which contains 1629 rows and 18 columns. Read this csv file and display the basic information like memory and data types for this data frame. Write python code for the following cases: 1.List out Movies Released in Year 2019. 2.How Many Movies are having IMDB Rating > 7 (Display Number of Movies). 3.List out the Movies with 'title' and 'story' whose IMDB Votes > 20000. 4.List out Movies Released in Year 2018, Display only Movie Title with Release Date of Year 2018 Movies. 5.Display only Movie Title with its Wikipedia Link.		6					
37	2	Which of the following commands is used to create an area plot in Matplotlib?	C	1		plt.scatter()	plt.area()	plt.fill_between()	plt.plot()
38	2	Which of the following is not a visualization under matplotlib?	D	1		Scatter Plot	Area Plot	Box Plot	Table Plot
39	2	Which python package is used for data visualization?	A	1		matplotlib.pyplot	matplotlib.pip	matplotlib.numpy	matplotlib.plt
40	2	Which of the following commands is used to show a Matplotlib plot in a Jupyter notebook?	C	1		plt.plot()	plt.display()	plt.show()	plt.draw()
41	2	Plot which is used to give statistical summary is	B	1		Scatter Plot	Box Plots	Bar Plot	Area Plot
42	2	Which of the following chart element is used to identify data series by its color patterns?	B	1		Data Series	Legend	Title	Markers
43	2	Which of the following is best suitable chart to show data correlation?	D	1		Histogram	Bar	Pie	Scatter
44	2	Which of the following parameters is used to specify the transparency of an area plot in Matplotlib?	A	1		alpha	linewidth	color	label
45	2	Which of the following commands is used to create a stacked area plot in Matplotlib?	B	1		plt.plot()	plt.stackplot()	plt.fill_between()	plt.area()
46	2	What type of data is best suited for box plots?	C	1		Categorical data	Binary data	Continuous numerical data	Time-series data
47	2	In a box plot, the bottom line of the box represents which quartile?	A	1	LJU 2023	First quartile	Second quartile	Third quartile	Fourth quartile
48	2	In a box plot, the top line of the box represents which quartile?	C	1		First quartile	Second quartile	Third quartile	Fourth quartile
49	2	What is a waffle chart in Python?	D	1		A type of pie chart	A type of stacked bar chart	A type of heatmap	A type of visualization that displays progress towards a goal
50	2	Which of the statement is true for Word Clouds?	A	1		A graphical representation of the most frequently occurring words in a text corpus	A cloud computing service for analyzing text data	A machine learning algorithm for text classification	A programming language for natural language processing
51	2	Which of the following types of data is best suited for creating a word cloud?	C	1		Categorical data	Numerical data	Text data	Image data
52	2	Which of the following parameters in the WordCloud() function is used to set the maximum number of words in the cloud?	A	1		max_words	words	max	word_size
53	2	Which of the following methods in the WordCloud() function is used to generate the word cloud image?	A	1		generate()	fit()	transform()	predict()

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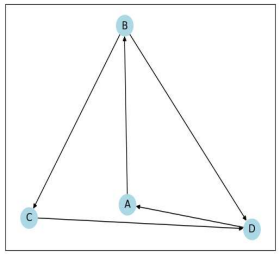
54	2	What does STOPWORDS contain in wordcloud?	A	1		Words that are used very frequently in a language and have little meaning, such as "the", "is", and "and"	Words that are used very rarely in a language and have little meaning, such as "zephyr", "ebullient", and "myriad"	Words that are used in a specific domain, such as "computer", "internet", and "programming"	Words that are used in formal contexts, such as "therefore", "moreover", and "thus"
55	2	What is the purpose of removing stopwords from a text before generating a word cloud?	C	1		To improve the readability of the word cloud	To reduce the number of words in the word cloud	To remove words that have little meaning and contribute to noise in the visualization	To highlight the most important words in the word cloud
56	2	Which Python library is commonly used to create regression plots?	B	1		pandas	seaborn	Matplotlib	NumPy
57	2	Which type of regression plot is used to visualize the relationship between two continuous variables?	B	1		lmplot	regplot	residplot	jointplot
58	2	What is a heatmap used for?	B	1		To visualize categorical data	To visualize numerical data in a grid-like format	To fit a regression line to the data	To perform clustering on the data
59	2	Which parameter in the sns.heatmap() function is used to show numerical values in heatmap?	A	1		annot	annotate	percent	show
60	2	What is the purpose of the cbar parameter in the sns.heatmap() function?	C	1		To adjust the transparency of the colorbar	To adjust the size of the colorbar	To add a colorbar to the heatmap	To adjust the color scale of the heatmap
61	2	Which of the following methods is used to create a map in Folium?	B	1		folium.create_map()	folium.Map()	folium.make_map()	folium.new_map()
62	2	Which of the following methods is used to add a marker to a map in Folium?	D	1		add_marker()	add_point()	add_location()	add_child()
63	2	Which of the following statements is true about the CircleMarker class in Folium?	A	1		It is used to create a circle markers on a map	It is used to create a polygon markers on a map	It is used to add a single marker to a map	It is not a valid class in Folium
64	2	Which of the following statements is true about the Choropleth class in Folium?	B	1		It is used to create a heatmap	It is used to create a choropleth map	It is used to group markers together	It is not a valid class in Folium
65	2	Which of the following methods is used to add a Choropleth to a map in Folium?	B	1		map.add_choropleth()	Choropleth.add_to(map)	map.add_layer()	Choropleth.add_marker()
66	2	Which of the following methods is used to create a Choropleth map in Folium?	B	1		folium.Map()	folium.Choropleth()	folium.Marker()	folium.Circle()
67	2	Which of the following types of graphs is not supported by NetworkX?	C	1		Directed graphs	Undirected graphs	Hypergraphs	None of the above
68	2	Which of the following methods is used to add nodes to a graph in NetworkX?	A	1		graph.add_node()	graph.add_nodes()	graph.nodes()	graph.node()
69	2	To plot a pywaffle chart, what will be the correct syntax used?	A	1		plt.figure(FigureClass=Waffle, rows=10, values=values, labels=labels)	plt.waffle(rows=10, values=values, labels=labels)	plt.pywaffle(rows=10, values=values, labels=labels)	plt.figure(figureclass=Waffle, rows=10, values=values, labels=labels)
70	2	Write a python program which creates following graph using networkx module in python 		2					
71	2	Create a boxplot of the distribution of temperatures in different cities. Take data from 'temperatures.csv' from below: https://raw.githubusercontent.com/kavit88/Data-Sets/main/temperatures.csv		3					
72	2	The following dictionary shows how five people follow each other on Instagram: instagram = {'person1': [0,1,1,0,1], 'person2': [0,0,1,0,1], 'person3': [1,1,0,1,1],'person4': [1,1,1,0,0], 'person5': [1,1,0,0,0]} E.g., the list for person1 has the value on index 2 as 1 which means person1 followsperson3 and a directed edge should be added from person1 to person3. Using networkx library, create a directed graph.		4					

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73	2	You have been given a dataset of car prices and their respective horsepower, mileage, and weight. You have been tasked to analyze the relationship between these variables and create a scatter plot to visualize the patterns. Dataset: The dataset, named "car_data.csv" : https://raw.githubusercontent.com/kavit88/Data-Sets/main/car_data.csv		5					
74	2	You have been given a dataset of house prices and their respective lot size and square footage. Your task is to create a scatter plot to determine if there is any correlation between these variables. Dataset: The dataset, named "house_data.csv": https://raw.githubusercontent.com/kavit88/Data-Sets/main/house_data.csv		5					
75	2	Use the file heights_weights.csv which contains 10000 non-null values for heights and weights. The Male column shows 1 if the person is a Male and 0 if the person is a Female. Take file of dataset from: https://raw.githubusercontent.com/kavit88/Data-Sets/main/heights_weights.csv 1. Convert this file into a pandas Data Frame. 2. Display basic information like memory and data types for this data frame. 3. Display basic statistics like mean, std, quartiles, etc. for this data frame. 4. Create a correlation table for the data frame and comment about what kind ofcorrelation is there between Height and Weight. 5. Do Height and Weight contain any outliers? Answer by creating boxplots for both. 6. Finally, create a scatter plot of Weight v/s Height with the following specifications: (i) use + sign, colour green and size 50 for markers. (ii) Label X Axis as Weight and Y Axis as Height. (iii) Display title on top as Weight vs Height		6					
76	2	The file "sales.csv" contains the monthly sales data for a store over a year. Each row contains the month (in the format "yyyy-mm"), the total sales for that month, and the number of items sold. Create a pandas DataFrame from this data and plot the monthly sales using an area plot. Take the dataset from below: https://raw.githubusercontent.com/kavit88/Data-Sets/main/sales.csv		3					
77	2	The file "survey.csv" contains the results of a survey that asks people how many hours they sleep per night, how much coffee they drink per day, and how many hours they spend exercising per week. Create a pandas DataFrame from this data and plot the relationships between these variables using regression plots. Specifically, create the following plots: 1. A regression plot of hours of sleep versus cups of coffee per day, with a regression line and confidence interval. 2. A regression plot of hours of sleep versus hours of exercise per week, with a regression line and confidence interval. 3. A regression plot of cups of coffee per day versus hours of exercise per week, with a regression line and confidence interval. Label each axis appropriately and give each plot a title. Take Dataset from below: https://raw.githubusercontent.com/kavit88/Data-Sets/main/survey.csv		5					
78	2	Use the California_Houses.csv file to create a map with the first 200 rows using the latitudes and longitudes given in the file with the following customizations: 1. Colour of circle markers should be green with red fill and the type of map should be stamen terrain 2. Add pop up labels using the population from the file. Take the dataset fom below: https://raw.githubusercontent.com/kavit88/Data-Sets/main/California_Houses.csv		4					
79	2	The file "student_scores.csv" contains the marks scored by a group of students in three subjects: Maths, Science, and English. Each row contains the name of the student, their score in Maths, Science, and English. Create a pandas DataFrame from this data and create a heatmap to visualize the correlations between the scores in these three subjects. Take Dataset from below: https://raw.githubusercontent.com/kavit88/Data-Sets/main/student_scores.csv		3					
80	2	You are given a dataset that contains the unemployment rate of different US states for the year 2021. You have to create a choropleth map of the US using the unemployment rate data. csv file: https://raw.githubusercontent.com/Jovita7/Data-Analysis-and-Visualization/main/US_Unemployment_Oct2012.csv json file: https://raw.githubusercontent.com/Jovita7/Data-Analysis-and-Visualization/main/us-states.json		3					
81	2	You are given a text file named "speech.txt" which contains the transcript of a speech. You need to create a Word Cloud for the most frequent words used in the speech. https://raw.githubusercontent.com/kavit88/Data-Sets/main/speech.txt		3					

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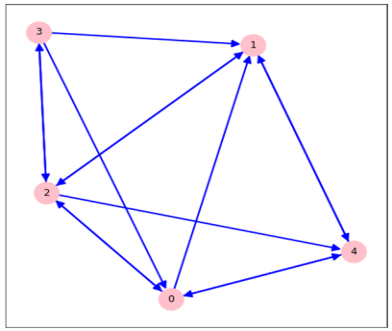
82	2	You are given a dataset containing customer reviews of a restaurant. Your task is to create a wordcloud of the most frequent words used in the reviews after removing the stopwords. https://raw.githubusercontent.com/kavit88/Data-Sets/main/restaurant_reviews.csv		4					
83	2	Suppose you have data on the number of medals won by a country in the 2020 Tokyo Olympics. You want to visualize this data using a waffle chart to show the proportional representation of each country's medal count. Data={'USA': 113, 'China': 88, 'Japan': 58, 'Great Britain': 65, 'ROC': 71, 'Australia': 46, 'Netherlands': 36, 'France': 33, 'Germany': 37, 'Italy': 40}		3	LJU 2023				
84	2	Using Networkx Library, Write a code to Create a below given Directed Graph. 		4	LJU 2024				
85	2	You have been hired as a network analyst by a company to analyze the social network of their employees. The company has provided you with the following data: There are 5 employees in the company, each identified by a unique ID from 1 to 5. The following relationships exist between the employees: 1. Employee 1 is friends with Employee 2 and Employee 3. 2. Employee 2 is friends with Employee 4. 3. Employee 3 is friends with Employee 5. Your task is to create a NetworkX graph representing this social network and display it.		3	LJU 2023				
86	2	Consider the following numpy arrays: Time=np.arange(12) income=np.array([5,9,6,6,10,7,6,4,4,5,6,4]) expense=np.array([6,6,8,3,6,9,7,8,6,6,4,8]) Use Time array for X-axis and create two separate lines in the same graph with income & expense on Y-axis. Give Appropriate labels. Create an area fill graph between the two lines in such a way that where income is more than expense, are filled with Green and areas where expense is more than income are filled with red.		3					

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87	2	You have been hired by an Airlines company to analyze their routes. The company has provided you following data. Your task is to create a NetworkX directed graph representing the routes and display it. Figure size should be (15,15), node color should be green, take appropriate node size, edge color should be red. Data: Kolkata to Mumbai Mumbai to Pune Mumbai to Goa Kolkata to Delhi Kolkata to Bhubaneshwar Mumbai to Delhi Delhi to Chandigarh Delhi to Surat Kolkata to Hyderabad Hyderabad to Chennai Chennai to Thiruvananthapuram Thiruvananthapuram to Hyderabad Kolkata to Varanasi Delhi to Varanasi Mumbai to Bangalore Chennai to Bangalore Hyderabad to Bangalore Kolkata to Guwahati		4					
88	2	Using 'supermarket_sales.csv' file do the following operations and give required answer by using proper programming process. 1). Load the dataset into a pandas DataFrame and read first 8 rows. 2). Check for missing values and fill it by mean values of that particular column if any. 3). Find the number of orders which have 'Quantity' less than 3 and which have (either 'Rating' greater than 8.5 or 'Total' greater than 600). 4). Find the sum of 'Total' purchasing price spent by Member and Normal 'Customer type'. 5). Find the percentage of total of 'gross income' based on the different 'Payment' methods used by customers. (Ewallet, Cash and Credit card) 6). Analyze the purchasing behavior of male and female customers using 'Gender' column. Find their average purchase prices using 'Total' column. 7). Create a scatter plot that shows the relationship between total amount spent and rating. (keep '+' marker, with marker size 100 and green color). 8). Create a box plot that shows the distribution of 'Rating' and 'Quantity'. And comment about outliers in both columns. 9). Visualize with parallel co-ordinates for 'Unit price', 'Total', 'cogs' columns' data with respect to 'Product line'.		9					
89	2	Use the file data.csv which contains 169 rows and 4 columns. 1. Convert this file into pandas Data Frame and Display basic statistics like mean, std, quartiles, etc. for this data frame. 2. Create a correlation table for the data frame and comment about what kind of correlation is there between Duration and Calories? 3. Find whether there any null or NA values, drop all such rows if found in the data frame and print the shape of the data frame after dropping. 4. Prepare a scatter matrix for the following data frame and prepare a parallel coordinates for Duration v/s Pulse, Maxpulse and Calories (all 3 other columns). 5. Do Maxpulse have any outliers? Find using function. 6. Show the outliers using box plot for Maxpulse, width of box plot should be 0.75 and notch should be True. 7. Create a scatter plot for Duration (x-axis) and then Pulse, Maxpulse and Calories (y-axis) with different colors. For each there should be different color and marker.		9					
90	2	The dataset provided in 'kc_house_data.csv' contains house sale prices for King County, which includes Seattle. It includes homes sold between May 2014 and May 2015.		9					

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		<table><tr><th>Variable</th><th>Description</th></tr><tr><td>id</td><td>A notation for a house</td></tr><tr><td>date</td><td>Date house was sold</td></tr><tr><td>price</td><td>Price is prediction target</td></tr><tr><td>bedrooms</td><td>Number of bedrooms</td></tr><tr><td>bathrooms</td><td>Number of bathrooms</td></tr><tr><td>sqft_living</td><td>Square footage of the home</td></tr><tr><td>sqft_lot</td><td>Square footage of the lot</td></tr><tr><td>floors</td><td>Total floors (levels) in house</td></tr><tr><td>waterfront</td><td>House which has a view to a waterfront</td></tr><tr><td>view</td><td>Has been viewed</td></tr><tr><td>condition</td><td>How good the condition is overall</td></tr><tr><td>grade</td><td>overall grade given to the housing unit, based on King County grading system</td></tr><tr><td>sqft_above</td><td>Square footage of house apart from basement</td></tr><tr><td>sqft_basement</td><td>Square footage of the basement</td></tr><tr><td>yr_built</td><td>Built Year</td></tr><tr><td>yr_renovated</td><td>Year when house was renovated</td></tr><tr><td>zipcode</td><td>Zip code</td></tr><tr><td>lat</td><td>Latitude coordinate</td></tr><tr><td>long</td><td>Longitude coordinate</td></tr><tr><td>sqft_living15</td><td>Living room area in 2015(implies-- some renovations) This might or might not have affected the lotsize area</td></tr><tr><td>sqft_lot15</td><td>LotSize area in 2015(implies-- some renovations)</td></tr></table> Perform the following tasks : 1) Load the csv to a dataframe named ‘house_survey’. 2) Display the first 5 rows of the dataframe. 3) Display the data types of each column. 4) Obtain a statistical summary of the dataframe. 5) Drop the columns "id" and "Unnamed: 0" 6) Check all the null values present in all the columns of the dataframe. 7) Replace the missing values of the column 'bedrooms' with the mean of the column. 8) Replace the missing values of the column 'bathrooms' with the mean of the column. 9) Count the number of houses with unique floor values. 10) Using boxplot determine whether houses with a waterfront view or without a waterfront view have more price outliers. (Mention your answer as comment in the next cell) 11) Use the function regplot in the seaborn library to determine if the feature sqft_above is negatively or positively correlated with price. (Mention your answer as comment in the next cell). 12) Find the feature other than price that is most correlated with price. (Mention your answer as comment in the next cell).							
91	2	For the given dataset – iris.csv, perform following exploratory data analysis using python - Use comment feature to answer appropriate questions – a) Load dataset into jupyter notebook using appropriate libraries. Check the datatypes of the dataset attributes. Does the data contain any missing /null values? b) Extract head and tail of the dataset using appropriate methods. c) Summarize statistical figures (i.e. mean, median, percentiles) in one table using appropriate method. d) Create correlation table of all variables. What can you infer about relation between petal length and sepal length? e) Create parallel coordinate plot of iris dataset. What can you infer about petal length and petal width? f) Create box plot of sepal width. Visualizing the plot, answer whether the sepal width data contains any outliers. g) Create cross tabulation of sepal length and petal width attributes. What does the table represent? h) Create scatter matrix of the dataset. i) Create a new column called ‘SepalLengthSize’ which contains “High” if sepal length ≥ 5 or “Low” if sepal length < 5.		9					

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92	2	To upload the 'diabetes_unclean.csv' to your working folder First import the following libraries import pandas as pd import matplotlib.pyplot as plt import numpy as np 1.Make a data frame with the variable name df 2.To display the specific statistics or measures that are relevant for object-type columns 3.To display the specific statistics or measures that are relevant for numerical-type columns 4.How many rows and columns are in a given dataset 5.To check the missing values 6.To replace the missing values in the column "HbA1c" with their mean value 7.Dropping the missing values of other columns 8.Display the correlation between variables 9. Checking the outliers in the dataset for the following parameters: 'AGE', 'Urea', 'HbA1c', 'Chol', 'TG', 'HDL', 'LDL', 'VLDL', 'BMI' using box plot with labels and title 10.Visualized the "Urea", "HbA1c", "TG" and "BMI" parameters for different ages using parallel_coordinates with labels and title 11.Remove the rows whose gender column has an "f" value and give the frequency count of the "F" and "M" values in different CLASS values 12.Remove the outliers in the "HbA1c" columns and print the shape of the data frame Note: all task output with specific question numbers and follow the sequence Example: print("Ans-1")		9	LJU 2023				
93	3	Which module in Python supports regular expressions?	A	1		re	regex	pyregex	None of these
94	3	What will be the output of the following Python code? re.split('\W+', 'Hello, hello, hello.')	D	1		['Hello', 'hello', 'hello.']	['Hello, 'hello', 'hello']	['Hello', 'hello', 'hello', '.']	['Hello', 'hello', 'hello', '']
95	3	What will be the output of the following Python function? re.findall("hello world", "hello", 1)	B	1	LJU 2023	["hello"]	[]	hello	hello world
96	3	What will be the output of the following Python code? re.sub('morning', 'evening', 'good morning')	A	1		'good evening'	'good'	'morning'	'evening'
97	3	What will be the output of the following Python code? re.split('mum', 'mumbai*', 1)	B	1		Error	['', 'bai*']	['', 'bai']	['bai*']
98	3	What will be the output of the following Python code? re.split(r'\s+', 'Chrome is better than explorer', maxsplit=3)	B	1		['Chrome', 'is', 'better', 'than', 'explorer']	['Chrome', 'is', 'better', 'than explorer']	('Chrome is', 'better', 'than explorer')	'Chrome is better' 'than explorer'
99	3	What will be the output of the following Python code? re.sub('Y', 'X', 'AAAAAA', count=2)	D	1		'YXAAAA'	('YXAAAA')	('AAAAAA')	'AAAAAA'
100	3	Which function returns a list containing all matches?	A	1		findall	search	split	find
101	3	Which character stand for Starts with in regex?	B	1		&	^	#	$
102	3	Which character stand for Zero or more occurrences in regex?	A	1		*	#	@	|
103	3	In Regex, s stands for?	C	1		Returns a match where the string DOES NOT contain digits	Returns a match where the string DOES NOT contain a white space character	Returns a match where the string contains a white space character	Returns a match if the specified characters are at the end of the string
104	3	Which of the following options is the correct way to import the regex library?	B	1		import regex	import re	import Regex	import Re
105	3	_____ matches the start of the string. _____ matches the end of the string.	A	1		'^', '$'	'$', '^'	'$', '?'	'?', '^'
106	3	What does the command ab+c search for?	C	1		ac,abc,abbc, and so on	ab,abc,abcc and so on	abc,abbc,abbbc and so on	None of the above
107	3	Which of the following command is used to search a match for 1,2,3,4?	D	1		[1-4]	(1-3)	[1234]	Both A and C
108	3	What is the output of the code shown below? print(re.split('\d','abc123xyz',maxsplit=1))	A	1		['abc', '23xyz']	['abc', '123xyz']	['abc123xyz']	['abc1', '23xyz']
109	3	What is the output of the below code? re.sub('a','u','aeiou!')	A	1		ueiou!'	eiou!'	eio!'	None of these
110	3	What is the output of the code shown below? import re text = "Is this Python?" pattern = r'\w{2}\W+[^\W]' result = re.sub(pattern, "**", text) print(result)	C	1		****ython?	Is this Py**	**h**ython?	Is th** ython?

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111	3	What is the output of the code shown below? import re text = " This is some text with bold and italic text. " pattern = r'<[^>]?>' result = re.sub(pattern, "", text) print(result)	A	1		This is some text with bold and italic text.	This is some text with bold and italic text.	This is some text with bold and italic text.	This is some text with
112	3	What will be the output of the following Python code? import re text = "My phone number is 123-456-7890 and my friend's number is 987-654-3210." pattern = r'\d{10}' result = re.findall(pattern, text) print(result)	A	1		[ ]	['123-456-7890', '987-654-3210']	['123-456-7890']	['123-456-7890-987-654-3210']
113	3	What will be the output of the following Python code? import re text = "The code is AAA333BB and PQR365RRR." pattern = r'[A-Z]{3}\d{3}[A-Z]{3}' result = re.findall(pattern, text) print(result[0])	D	1		A	PQR	AAA333BB	PQR365RRR
114	3	What is the output of the code shown below? import re txt="That will be 59 dollars till 2000" x=re.findall('\d+',txt) print(x)	B	1		59,2000	[‘59’,’2000’]	[‘59’,’20’,’00’]	59,20,00
115	3	What is the output for following program? import re text = "The quick brown @fox*jumps#over$the^ lazy&dog." pattern = r'[a-z]+' result = re.split(pattern, text) len(result[0])	B	1		5	1	2	3
116	3	What is the output for following program? import re text = "The quick brown fox jumps over the lazy dog." result = re.findall(r'\w{3}', text) print(result)	A	1		['The', 'qui', 'bro', 'fox', 'jum', 'ove', 'the', 'laz', 'dog']	['qui', 'bro', 'fox', 'jum', 'ove', 'the', 'laz',]	['The']	[ ]
117	3	What is the output for following program? import re text = "the password is p@ssword." pattern = r'[A-Z0-9]+' result = re.search(pattern, text) print(result)	A	1		None	0	error	[ ]
118	3	What is the output of the code shown below? import re txt = "08 times before 11:45 AM" x = re.findall("[1-5][0-9]", txt) print(x)	A	1		['11', '45']	[‘08’, '11', '45']	[‘8’, '11', '45']	['11:45']
119	3	What is the output of the below code? import re text = "Hello, how are you?" pattern = r'\w{3}\W+' result = re.sub(pattern, "###", text) (result)	A	1	LJU 2023	'He##########'	'He###ow ###ou?'	'He###how are you?'	None of these
120	3	What is the output of the below code? import re text = "The quick brown fox jumps over the lazy dog." result = re.findall(r'\w{4}\s', text) print(len(result))	A	1	LJU 2023	5	4	3	2

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121	3	What is the output of the below code? import re s = "black, blue and brown" pattern = r'bl\w+\W' matches = re.findall(pattern,s) print(len(matches[0]))	B	1	LJU 2023	5	6	4	3
122	3	What is the output of the below code? import re text = "The code is ABC123XYZ and XYZ789." pattern = r'[A-Z]{3}\d{3}[^\s]{3}' result = re.findall(pattern, text) print(result)	A	1	LJU 2023	['ABC123XYZ']	ABC123XYZ']	[]	[ABC123XYZ]
123	3	What is the output of the below code? import re pattern = r'\d{3}' string = 'The price of the product is 1234 dollars.' match = re.findall(pattern, string) print(match[0])	A	1	LJU 2023	123	1234	12	12
124	3	What is the output of the code shown below? import re txt="The date was 12-05-2024 and time was 12:30 PM" x=re.findall('[0-5][0-8]',txt) print(x)	A	1	LJU 2024	['12', '05', '20', '24', '12', '30']	['12', '05', '2024', '12', '30']	['120520241230']	['12-05', '2024', '12', '30']
125	3	Write a python program to print Phone number from given string using regular expressions.		3					
126	3	Write a Python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9) using regular expressions.		3					
127	3	Write a Python program using regular expressions that matches a string that has an a followed by zero or more b's.		4					
128	3	Write a Python program that matches a string that has an 'a' followed by one or more b's using regular expressions.		4					
129	3	Write a Python program that matches a string that has an 'a' followed by zero or one 'b' using regular expressions.		4					
130	3	Write a Python program that matches a string that has an 'a' followed by three 'b' using regular expressions.		4					
131	3	Write a Python program to find sequences of lowercase letters joined by an underscore using regular expressions.		4					
132	3	Write a Python program to find the sequences of one upper case letter followed by lower case letters using regular expressions.		4					
133	3	Write a Python program that matches a word at the end of a string, with optional punctuation using regular expressions.		4					
134	3	Write a Python program that matches a word containing 'z' using regular expressions.		4					
135	3	Write a Python program to match a string that contains only upper and lowercase letters, numbers, and underscores using regular expressions.		4					
136	3	Write a Python program that starts each string with a specific number using regular expressions.		4					
137	3	Write a Python program to remove leading zeros from an IP address using regular expressions.		4					
138	3	Write a Python program to check for a number at the end of a string using regular expressions.		4					
139	3	Write a Python program to search for literal strings within a string using regular expressions.		4					
140	3	Write a Python program to extract year, month and date from an URL using regular expressions.		4					
141	3	Write a Python program to convert a date of yyyy-mm-dd format to dd-mm-yyyy format using regular expressions.		4					
142	3	Write a Python program to find all words starting with 'a' or 'e' in a given string using regular expressions.		4					
143	3	Write a Python program to abbreviate 'Road' as 'Rd.' in a given string using regular expressions.		3					

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144	3	Write a Python program to replace all occurrences of a space, comma, or dot with a colon using regular expressions.		3					
145	3	Write a Python program to replace maximum 2 occurrences of space, comma, or dot with a colon using regular expressions.		3					
146	3	Write a Python program to convert a camel-case string to a snake-case string using regular expressions.		4					
147	3	Write a Python program to remove multiple spaces from a string and store the output in list using regular expressions.		3					
148	3	Write a Python program to split a string into uppercase letters using regular expressions.		3					
149	3	Write a Python program to remove the parenthesis area in a string.		3					
150	3	Write a Python program to insert spaces between words starting with capital letters.		4					
151	3	Write a Python program that reads a given expression and evaluates it.		7					
152	3	Write a Python program to remove lowercase substrings from a given string.		4					
153	3	Write a Python program that checks whether a word starts and ends with a vowel in a given string. Return true if a word matches the condition; otherwise, return false. Sample Data: ("Red Orange White") -> True ("Red White Black") -> False ("abcd dkise eosksu") -> True		4					
154	3	Write a Python program that takes a string with some words. For two consecutive words in the said string, check whether the first word ends with a vowel and the next word begins with a vowel. If the program meets the condition, return true, otherwise false. Only one space is allowed between the words. Sample Data: ("These exercises can be used for practice.") -> True ("Following exercises should be removed for practice.") -> False ("I use these stories in my classroom.") -> True		4					
155	3	Write a Python Program to find all five-character words in a string. For example: Input : text = 'The quick brown fox jumps over the lazy dog.' Output : ['quick', 'brown', 'jumps']		2					
156	3	Write a python program that executes following tasks (strictly using regex module) Given text – " hello welcome to the python exam my email is alice@google.com, world this is bob@meta.com appearing for python exam " a) Remove leading and trailing spaces of the given text. b) Replace space between words of the given text by '$' symbol c) Extract username and host name (i.e. alice,bob,google, meta) in a list		4					
157	3	Write a Python Program to find all URLs from a given text. Consider URLs to be of only this format. http://github.com https://github.com Can Start with either http or https followed by :// domain name dot com Example: Text="Hello all Students must visit at my website https://www.pandasrockstar.com for more information. Also, check out http://www.google.com" Output: Found URLs: https://www.pandasrockstar.com http://www.google.com		3					
158	4	Which of the following pandas functions is used to convert categorical data into numeric data?	A	1		get_dummies()	numeric()	get_categorical()	get_dumps()
159	4	How do you handle missing or corrupted data in a dataset?	D	1		Drop missing rows or columns	Replace missing values with mean/median/mode	Assign a unique category to missing values	All of these
160	4	What is Scikit-learn?	A	1		A machine learning library in Python	A data visualization library in Python	A natural language processing library in Python	A web development framework in Python

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161	4	Which of the following is an example of a regression algorithm in Scikit-learn?	C	1		K-means clustering	Decision tree	Linear regression	Support vector machines (SVM)
162	4	How would you access the column "symboling" from the dataframe df?	A	1		df["symboling"]	df=="symboling"	df[:"symboling"]	df[{"symboling"}]
163	4	What is the correct symbol for missing data?	B	1	LJU 2024	na	nan	none	non
164	4	Why do we convert values of Categorical Variables into numerical values?	A	1		Most statistical models cannot take in objects or strings as inputs	To save memory	To save time	None of these
165	4	What is the main difference between regression and classification in supervised learning?	A	1		Regression predicts continuous outcomes, while classification predicts categorical outcomes	Regression predicts categorical outcomes, while classification predicts continuous outcomes	Regression uses labeled data, while classification uses unlabeled data	Regression is unsupervised, while classification is supervised
166	4	What evaluation metric is commonly used for regression tasks?	C	1		Accuracy	Precision	Mean Squared Error (MSE)	Recall
167	4	What type of target variable is typically used in a regression problem?	C	1	LJU 2024	Discrete	Categorical	Continuous	Binary
168	4	What is feature selection in supervised learning?	B	1	LJU 2024	It is the process of creating new features from existing ones.	It is the process of removing irrelevant or redundant features from the dataset.	It is the process of selecting the target variable for prediction.	It is the process of transforming categorical features into numerical features.
169	4	What is feature transformation in machine learning?	D	1		It is the process of creating new features from existing ones.	It is the process of removing irrelevant or redundant features from the dataset.	It is the process of selecting the target variable for prediction.	It is the process of transforming categorical features into numerical features.
170	4	You've been given a dataset with apartment area and price information. There's a noticeable non-linear relationship between area and price. To address this you intend to categorize them into 'High', 'Medium', and 'Low' groups. Prices above $3,000,000 are 'High', below $2,000,000 are 'Low', and between $2,000,000 and $3,000,000 are 'Medium'. Write a code to achieve this assuming that dataset has two columns named area and price.		3					
171	4	In a survey dataset, you have a column representing participants' ages. You want to categorize ages into 'Young', 'Middle-aged', and 'Elderly' groups. Ages below 30 are 'Young', ages between 30 and 60 are 'Middle-aged', and ages above 60 are 'Elderly'. Write a code to achieve this assuming the dataset has a column named 'age'.		3					
172	4	In a customer dataset, you have a column representing customer incomes. You want to categorize incomes into 'Low', 'Medium', and 'High' groups. Incomes below 30000 are 'Low', incomes between 30000 and 70000 are 'Medium', and incomes above 70000 are 'High'. Write a code to achieve this assuming the dataset has a column named 'income'.		3					
173	5	From where you can import LinearRegression?	C	1		sklearn.metrics	sklearn.linearmodel	sklearn.linear_model	sklearn. model_selection
174	5	From where you can import train_test_split?	D	1		sklearn.metrics	sklearn.linearmodel	sklearn.linear_model	sklearn. model_selection
175	5	What is the purpose of the predict() method in sklearn?	B	1		To train a model using a given dataset	To make predictions using a trained model	To evaluate the performance of a model	To split the data in train and test data
176	5	What is the purpose of the fit() method in sklearn?	A	1		To train a model using a given dataset	To evaluate the performance of a model	To create a plot of predicted values	All of these
177	5	If we pass x and y to a function train_test_split(), we will get output in which order?	B	1		x_train, y_train, x_test, y_test	x_train, x_test, y_train, y_test	x_train, y_test, x_test, y_train	y_train, y_test, x_train, x_test
178	5	Consider the following lines of code, what is the name of the column that contains the target values: from sklearn.linear_model import LinearRegression lm=LinearRegression() X = df[['highway-mpg']] Y = df['price'] lm.fit(X, Y) Yhat=lm.predict(X)	A	1		price	highway-mpg	Both A and B	None of these
179	5	If X is a dataframe with 100 rows and 5 columns, and y is the target with 100 samples, and assuming all the relevant libraries and data have been imported, and the following line of code has been executed: LR = LinearRegression() LR.fit(X, y) yhat = LR.predict(X) How many samples does yhat contain?	C	1		50	500	100	5
180	5	What will be the size of training data if data is split like below? train_test_split(x,y,test_size=0.25,random_state=2)	A	1		75%	25%	80%	20%

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181	5	Consider the following code snippet that implements linear regression in Python, what will be printed as the output of the code snippet?
		import numpy as np
		from sklearn.linear_model import LinearRegression
		
		# Training data
		X_train = np.array([[1], [2], [3], [4]])
		y_train = np.array([2, 4, 6, 8])
		
		# Test data
		X_test = np.array([[5]])
		
		# Linear regression model
		model = LinearRegression( )
		model.fit(X_train, y_train)
		predicted_value = model.predict(X_test)
		
		print(predicted_value)
			B	1	LJU 2024	10	[10.]	5	[5.]

182	5	If the data contains 100 rows and 2 columns and if test_size=0.2 then how many rows will go into training and how many will undergo in testing?	A	1		80,20	70,30	50,60	30,70
183	5	Consider the following lines of code having 200 non-null data in both x and y. what is the output of following code : import pandas as pd import numpy as np dataset=pd.read_csv("advertising.csv") x=dataset[["TV","Radio","Newspaper"]] y=dataset["Sales"] print(x.shape)	A	1		(200,3)	(200,)	(200,1)	(160,3)
184	5	Consider the following lines of code having 300 non-null data in both x and y. what is the output of following code : import pandas as pd import numpy as np dataset=pd.read_csv("Book1.csv") x=dataset[["cgpa"]] y=dataset["package"] from sklearn.model_selection import train_test_split x_train, x_test, y_train, y_test = train_test_split(x,y, test_size=0.2, random_state=1) print(x_train.shape)	C	1	LJU 2024	(240,3)	(240,)	(240,1)	(60,)
185	5	If a dataframe with 400 rows and 5 columns, from the following code how many number of rows will go for x_test? from sklearn.model_selection import train_test_split x_train, x_test, y_train, y_test = train_test_split(x,y, test_size=0.2, random_state=1)	A	1		80	100	10	200
186	5	In scikit-learn's linear regression, what is the purpose of the "coef_" attribute?	B	1		It returns the intercept of the linear regression model.	It provides the coefficients of the features in the linear regression model.	It predicts the target variable values for new input data.	It computes the mean squared error (MSE) of the model.
187	5	What is the purpose of the LinearRegression() function in scikit-learn?	B	1		To perform classification tasks	To fit a linear model to the data	To preprocess text data	To plot scatter plots
188	5	In linear regression, what does the coefficient of determination (R-squared) measure?	D	1		The strength of the relationship between independent and dependent variables	The slope of the regression line	The accuracy of the model predictions	The variance explained by the re
189	5	When should you use linear regression for modeling data?	D	1		When the relationship between variables is nonlinear	When the dataset contains categorical variables	When the dependent variable is binary	When there is a linear relationship between independent and dependent variables

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
190	5	What does the coefficient of the independent variable (slope) in a simple linear regression model represent?	B	1		The y-intercept of the regression line.	The change in the dependent variable for a unit change in the independent variable.	The standard deviation of the residuals.	The correlation between independent and dependent variables
191	5	In polynomial regression, what does the degree of the polynomial represent?	B	1		The number of independent variables in the model.	The order of the polynomial curve fitted to the data.	The correlation between independent and dependent variables	The y-intercept of the regression curve.
192	5	What distinguishes polynomial regression from linear regression?	C	1		Polynomial regression can handle categorical variables.	Polynomial regression only works with two variables.	Polynomial regression fits a curve to the data instead of a straight line.	Polynomial regression always has a higher R-squared value than linear regression.
193	5	When would you choose polynomial regression over linear regression?	B	1		When there is a linear relationship between variables.	When the data points exhibit a non-linear pattern.	When dealing with categorical variables.	When the dataset contains missing values.
194	5	Match the following concepts/methods in regression with their correct descriptions: Concept/Method — Description A. Simple Linear Regression — 1. Transformation used to create polynomial features from the original features. B. R-Score — 2. Model that fits a linear relationship between the target variable and a single predictor variable. C. PolynomialFeatures — 3. Metric used to evaluate the proportion of variance in the dependent variable explained by the model. D. train_test_split — 4. Method to divide the dataset into training and testing subsets. E. LinearRegression — 5. Model that can fit both simple and multiple linear regression. F. Polynomial Regression — 6. Scenario where a model learns the noise in the training data and performs poorly on new data. G. Overfitting — 7. Model that fits a non-linear relationship between the target variable and predictor variables by using polynomial terms.	A	1	LJU 2024	A-2,B-3,C-1,D-4,E-5,F-7,G-6	A-5,B-2,C-3,D-1,E-7,F-4,G-6	A-5,B-3,C-2,D-4,E-1,F-7,G-6	A-2,B-3,C-4,D-1,E-7,F-6,G-5
195	5	For x = np.array([5, 15, 25, 35, 45, 55]) and y = np.array([5, 20, 14, 32, 22, 38]), apply simple linear regression using scikit learn library and calculate calculate R squared, coeficient and intercept. Predict the y values for x = np.arange(5). (Don't split data for training/testing)		5					
196	5	Given a dataset with 'SAT' scores as independent variables and 'GPA' as the dependent variable, calculate R squared, coeficient and intercept using linear regression and scikitlearn library. (Don't split data for training/testing)		5					
197	5	Given a real estate price size year dataset, implement multiple linear regression using scikitlearn library. Using the model, make a prediction about an apartment price with size 750 sq.ft. for 2009.Also Calculate R squared, coeficient and intercept. (Don't split data for training/testing)		5					
198	5	Predict salary based on job position of 6.5 using polynomial regression with a degree of 3 and scikit learn library for the given 'Position_Salaries.csv' dataset. (Don't split data for training/testing)		5					
199	5	For x = np.arange(0, 30) and y = np.array([3, 4, 5, 7, 10, 8, 9, 10, 10, 23, 27, 44, 50, 63, 67, 60, 62, 70, 75, 88, 81, 87, 95, 100, 108, 135, 151, 160, 169, 179]), apply polynomial regression using scikit learn library and calculate R squared, coeficient and intercept. Predict the y values for x = np.arange(5). (Don't split data for training/testing)		5					
200	5	Write a program to make a model based on linear regression for the following dataframe created from a csv file named "Package.csv" of x and y which follows equation y = a + bx. Write a program which can predict value of y based on any value of x, also write code to find value of a and b in above equation. Given Data in csv file:		3					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		cgpa package 6.89 3.26 5.12 1.98 7.82 3.25 7.42 3.67 6.94 3.57 7.89 2.99 6.73 2.60 6.75 2.48 6.09 2.31 8.31 3.51 5.32 1.86 6.61 2.60 8.94 3.65 6.93 2.89 7.73 3.42							
201	5	Write a program to make a model based on linear regression for the following dataframe created from a csv file named "data.csv" of x1 and y which follows equation y = a+bx1. Write a program which can predict value of y based on any value of x, also write code to find value of a and b in above equation. Given Data in csv file: y X_1 140 60 155 62 159 67 179 70 192 71 200 72 212 75 215 78		3	LJU 2024				
202	5	Write a program to create a Model using linear regression to predict the price of house using the csv file provided named "Housing.csv". Do the required process in the data before making a model. Find predicted values, co-efficients, intercept and mean squared error. https://github.com/pdsinroza/python2/blob/39b36bf2f0121910fd1207952aa0ec20b2d77cfb/housing.csv		4					
203	5	Write a program to create a Model using linear regression to predict the student scores using the csv file provided named "student_scores.csv". Do the required process in the data before making a model. Find predicted values, co-efficients, intercept and mean squared error. https://github.com/pdsinroza/python2/blob/695586ff85947e2ff727385ce208322f5b29de08/student_scores.csv		4					
204	5	Write a program to create a Model using linear regression to predict the gas consumption using the csv file provided named "petrol_consumption.csv". Do the required process in the data before making a model. Find predicted values, co-efficients, intercept and mean squared error. https://github.com/pdsinroza/python2/blob/f4711a48cc10c84c9892b96900760848e1c1fdf0/petrol_consumption.csv		4					
205	5	Write a program to create a Model using linear regression to predict the gas consumption using the csv file provided named "FuelConsumptionCo2.csv". Do the required process in the data before making a model. Find predicted values, co-efficients, intercept and mean squared error. (Wherever required remove null values, convert categorical data into numeric data) (Print Output wherever required)		5					

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Sr. No.	**unit_number**	**question_text**	**answer_text**	**marks**	**previous_year**	**option1 (A)**	**option2 (B)**	**option3 (C)**	**option4 (D)**
206	5	For the given RealEstate csv, write a python program satisfying following tasks to demonstrate application of machine learning through multiple linear regression as follows – Given: - Dataset RealEstate.csv ML Library to be used scikit-learn Dependent variable 'Y house price of unit area' Independent variables 'X1 transaction date', 'X2 house age', 'X3 distance to the nearest MRT station', 'X4 number of convenience stores', 'X5 latitude' and 'X6 longitude' 1. Import required libraries. 2. Load RealEstate dataset, create a dataframe and check datatypes of its attributes using appropriate method. 3. Remove 'No' column from the dataframe. 4. Check for any null values in features using appropriate method. 5. Create feature variables x and y as given above. 6. Create training and testing sets of feature variables with 70% of data for training and with random state of 110. 7. Create and fit regression model using appropriate method. 8. Use testing set created in step 6 to find and print the prediction of the outcome. 9. Find and print coefficient and mean squared error of the regression model.		5					
207	5	Write a program to create a Model using linear regression to predict the charges of insurance using the csv file provided named "insurance.csv". Do the required process in the data before making a model. Find predicted values, co-efficients, intercept and mean squared error.		5					
208	5	Write a program to create a Model using linear regression to predict the wine quality using the csv file provided named "winequality.csv". Do the required process in the data before making a model. If you find any null value in "winequality.csv" then replace null value with mean value of respected columns. Find co-efficient, intercept and mean squared error. also Predict the quality of red wine for the following data: fixed acidity: 8 volatile acidity: 0.4 citric acid: 0.40 residual sugar: 15 chlorides: 0.048 free sulfur dioxide: 40 total sulfur dioxide: 150 density: 0.99 pH: 3 sulphates: 0.45 alcohol: 10.5		5					
209	5	Consider variables x and y created from a pandas dataframe "car.csv" . Create new column named "Age_car" (Age_car=2023-year) For multiple linear regression problem, x contains the independent variables (Age_car , Driven_kms , Fuel_Type , Selling_type , Transmission) and y contains the dependent (Selling_Price) variable which is to be predicted. Write a Python program to spilt x and y into training and testing datasets with a 20% split. Then create a multiple linear regression model using the training data and print its coefficients ,intercept and mean squared error.		4	LJU 2024				
210	6	What does kNN stand for?	C	1		K-Neural Networks	K-Means Neighbours	k Nearest Neighbours	K-Cluster Neighbours
211	6	In the context of kNN, what does 'distance' refer to?	B	1		Geographical distance	Difference in attribute values	Time difference	None of these
212	6	What is the main advantage of kNN?	A	1		No assumptions about data	Makes assumptions about data	Prone to overfitting	None of these
213	6	What is the main disadvantage of kNN?	B	1		No assumptions about data	Sensitive to irrelevant features and the scale of the data	Not prone to overfitting	None of these
214	6	What does kNN use to make decisions?	B	1		Splitting criteria like entropy or gini index	Distance measures like Euclidean or Manhattan	Similarity measures like cosine similarity	None of these
215	6	What does the following code snippet represent? from sklearn.neighbors import KNeighborsClassifier knn = KNeighborsClassifier(n_neighbors=5)	B	1		Training a decision tree classifier	Initializing a kNN classifier	Implementing logistic regression	Initializing a random forest classifier

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
216	6	What does the following code snippet accomplish? from sklearn.model_selection import train_test_split from sklearn.neighbors import KNeighborsClassifier X_train, X_test, y_train, y_test = train_test_split(features, labels, test_size=0.3, random_state=42) knn = KNeighborsClassifier(n_neighbors=5) knn.fit(X_train, y_train) predicted_labels = knn.predict(X_test)	B	1		Initializes a kNN classifier with 5 neighbors and trains it on the entire dataset	Splits the dataset into training and testing sets, initializes a kNN classifier with 5 neighbors, and trains it on the training set	Trains a decision tree classifier with Gini index as the criterion	Initializes a logistic regression classifier and evaluates its performance on the test set
217	6	What class from scikit-learn is used to create a KNN classifier?	B	1		KNeighborsRegressor()	KNeighborsClassifier()	knn_classify()	nearest_neighbors()
218	6	What metric is used by default in KNeighborsClassifier() to calculate distance between data points?	C	1		Manhattan distance	Chebyshev distance	Euclidean distance	Jaccard similarity
219	6	What is the primary task of the k-Nearest Neighbors algorithm?	A	1		Classification	Regression	Clustering	Dimensionality reduction
220	6	In kNN, the value of k represents:	C	1		The number of features in the dataset	The number of clusters in the dataset	The number of nearest neighbors to consider	The number of classes in the dataset
221	6	What does the "fit" method in scikit-learn's KNeighborsClassifier class do?	A	1		Trains the model	Evaluates the model	Preprocesses the data	Visualizes the data
222	6	Which parameter of the KNeighborsClassifier determines the number of neighbors to consider?	D	1		neighbors	k_value	k_neighbors	n_neighbors
223	6	Which of the following scenarios is an example where K-Nearest Neighbors (KNN) algorithm is not suitable?	A	1		Image classification with high-resolution images.	Fraud detection in credit card transactions.	Sentiment analysis of text data.	Speech recognition for voice commands.
224	6	What is the primary criterion for a decision tree using entropy?	A	1	LJU 2024	Information Gain	Gini Index	Chi-Square	Reduction in Variance
225	6	What is entropy in the context of a decision tree?	D	1		A measure of impurity or disorder	A measure of similarity	A measure of distance	A measure of impurity or disorder
226	6	What does a decision tree do?	C	1		It makes decisions	It predicts continuous outcomes	It classifies data into different classes	None of these
227	6	What is the disadvantage of a decision tree?	A	1		Prone to overfitting	Prone to underfitting	Not sensitive to outliers	None of these
228	6	What does a decision tree use to make decisions?	A	1		Splitting criteria like entropy or gini index	Distance measures like Euclidean or Manhattan	Similarity measures like cosine similarity	None of these
229	6	What is the primary task of the Decision Tree algorithm?	A	1		Classification	Regression	Clustering	Dimensionality reduction
230	6	Which of the following measures is used to quantify the randomness in a decision tree?	B	1		Variance	Entropy	Standard Deviation	Mean Absolute Error
231	6	What is the purpose of the following code snippet? from sklearn.tree import DecisionTreeClassifier dt_classifier = DecisionTreeClassifier(criterion='entropy')	C	1		Initializing a decision tree classifier with Gini index	Initializing a kNN classifier with Euclidean distance	Initializing a decision tree classifier with entropy as the criterion	Initializing a logistic regression classifier
232	6	How is accuracy calculated in the context of a confusion matrix?	A	1		(True Positives + True Negatives) / Total Predictions	True Positives / (True Positives + False Positives)	(True Positives + True Negatives) / Total Actual Positives	True Negatives / (True Negatives + False Negatives)
233	6	Which metric from the confusion matrix reflects the proportion of correctly classified negative instances?	C	1		Accuracy	Sensitivity	Specificity	Error Rate
234	6	Which metric from the confusion matrix focuses on the ability of the model to correctly identify positive instances?	B	1		Accuracy	Sensitivity	Specificity	Error Rate
235	6	Which of the following best describes sensitivity?	A	1		Proportion of correctly classified positive instances	Proportion of correctly classified negative instances	Proportion of incorrectly classified positive instances	Proportion of incorrectly classified negative instances
236	6	How is specificity calculated in the context of a confusion matrix?	A	1		True Negatives / (True Negatives + False Positives)	True Positives / (True Positives + False Negatives)	(True Positives + True Negatives) / Total Actual Positives	(True Positives + True Negatives) / Total Predictions
237	6	How is the error rate calculated from a confusion matrix?	D	1		True Negatives / (True Negatives + False Positives)	(True Positives + True Negatives) / Total Actual Positives	True Positives / (True Positives + False Negatives)	(False Positives + False Negatives) / Total Predictions
238	6	Which metric from the confusion matrix focuses on the ability of the model to correctly identify negative instances?	C	1		Accuracy	Sensitivity	Specificity	Error Rate
239	6	How is specificity calculated in the context of a confusion matrix?	A	1		True Negatives / (True Negatives + False Positives)	True Positives / (True Positives + False Negatives)	(True Positives + True Negatives) / Total Actual Positives	(True Positives + True Negatives) / Total Predictions
240	6	What is the purpose of the following code snippet? from sklearn.metrics import confusion_matrix conf_matrix = confusion_matrix(true_labels, predicted_labels)	A	1		Evaluating the confusion matrix	Training a decision tree classifier	Implementing kNN algorithm	Tuning hyperparameters for a random forest classifier
241	6	What does the following code snippet accomplish? print(conf_matrix[0, 0] / (conf_matrix[0, 0] + conf_matrix[0, 1]))	B	1		Calculating the sensitivity of the classifier	Calculating the specificity of the classifier	Evaluating the F1 score	Printing the accuracy score of the model
242	6	What is the purpose of the following code snippet? from sklearn.tree import DecisionTreeClassifier from sklearn.metrics import confusion_matrix dt_classifier = DecisionTreeClassifier(criterion='entropy') dt_classifier.fit(X_train, y_train) predicted_labels = dt_classifier.predict(X_test) conf_matrix = confusion_matrix(y_test, predicted_labels)	A	1		Initializes a decision tree classifier with entropy as the criterion and evaluates its performance using a confusion matrix	Initializes a kNN classifier with 3 neighbors and evaluates its performance using a confusion matrix	Initializes a logistic regression classifier and evaluates its performance using a confusion matrix	Trains a random forest classifier and evaluates its performance using a confusion matrix

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
243	6	Write Python code to train a kNN classifier using the following steps: Split the dataset X into training and testing sets with a test size of 0.3 and a random state of 42. Initialize a kNN classifier with 5 neighbors. Train the classifier on the training set. Make predictions on the test set. Calculate and print the accuracy score of the classifier.		4					
244	6	Write Python code to train a decision tree classifier with entropy as the criterion using the following steps: Initialize a Decision Tree classifier with entropy as the criterion. Train the classifier on the training set. Make predictions on the test set. Calculate and print the confusion matrix for the classifier.		3					
245	6	Write Python code to evaluate the performance of a classification model using the following steps: Import the necessary functions from sklearn.metrics. Calculate and print the classification report for the true labels and predicted labels. Calculate and print the accuracy score of the classifier.		4					
246	6	Using the Iris dataset (https://raw.githubusercontent.com/pdsinroza/python2/main/Iris.csv?token=GHSAT0AAAAAACQ7ZNWMQ3U6FOFL37O2JIPAZQ5CWZA), write Python code to perform the following tasks: Split the dataset into features (X) and labels (y). Split the features and labels into training and testing sets with a test size of 0.2 and a random state of 42. Initialize a kNN classifier with 3 neighbors. Train the classifier on the training set. Make predictions on the test set. Calculate and print the accuracy score of the classifier.		4					
247	6	You are tasked with using the k-Nearest Neighbors (kNN) algorithm to classify whether patients have diabetes or not based on certain diagnostic measurements. You have been provided with diabetes.csv file. The datasets consist of several medical predictor (independent) variables and one target (dependent) variable, Outcome. Independent variables include the number of pregnancies the patient has had, their BMI, insulin level, age, and so on. Also perform Model Performance Analysis using confusion matrix.		7					
248	6	Given the Breast Cancer Wisconsin (Diagnostic) dataset, the objective is to build a kNN classification model that accurately predicts whether a tumor is benign or malignant based on the diagnostic features provided. The model should be trained on a portion of the dataset and evaluated on another portion to assess its performance. The ultimate goal is to create a reliable classifier that can assist healthcare professionals in diagnosing breast cancer accurately and early. Use cancer.csv file for dataset.		5					
249	6	Given the credit card transaction dataset, the objective is to build a kNN classification model that accurately predicts whether a transaction is fraudulent or non-fraudulent based on the transaction features provided. The model should be trained on historical transaction data and evaluated on another portion of the dataset to assess its performance. The ultimate goal is to create a reliable classifier that can automatically detect fraudulent transactions and prevent financial losses for credit card companies and cardholders. Use card_transdata.csv for dataset.		5					
250	6	The task involves building a k-Nearest Neighbors (kNN) regression model to predict the Air Quality Index (AQI) based on the latitude and longitude coordinates of various countries. The dataset used for this task contains information about the AQI levels and geographic locations (latitude and longitude) of different countries. The AQI serves as an indicator of air quality, with higher values indicating poorer air quality and vice versa. Use AQI and Lat Long of Countries.csv for dataset.		5					
251	6	The task involves building a Decision Tree classifier to predict whether to play tennis based on weather conditions. The dataset used for this task is the PlayTennis dataset, which contains information about various weather attributes such as outlook, temperature, humidity, and wind, along with the corresponding decision to play tennis or not. Use PlayTennis.csv for dataset.		6					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
252	6	Imagine that you are a medical researcher compiling data for a study. You have collected data about a set of patients, all of whom suffered from the same illness. During their course of treatment, each patient responded to one of 5 medications, Drug A, Drug B, Drug c, Drug x and y. Part of your job is to build a model to find out which drug might be appropriate for a future patient with the same illness. The feature sets of this dataset are Age, Sex, Blood Pressure, and Cholesterol of patients, and the target is the drug that each patient responded to. It is a sample of multiclass classifier, and you can use the training part of the dataset to build a decision tree, and then use it to predict the class of a unknown patient, or to prescribe it to a new patient. Use drug200.csv for dataset.		7					
253	6	You have been provided with a dataset named students_performance.csv, which contains various features related to students' performance in exams. The dataset includes features such as gender, race/ethnicity, parental level of education, lunch, test preparation course, and scores in math, reading, and writing. Your task is to perform classification to predict whether a student will pass or fail based on these features. Steps to complete: 1.Load the Dataset: oLoad the dataset students_performance.csv into a pandas DataFrame. oDisplay the first few rows to understand the structure of the dataset and check the statistics. 2.Preprocessing: oConvert the scores in math, reading, and writing to a binary pass/fail label. Consider a score of 50 or above as pass(1) and below 50 as fail(0). oDrop the scores in math, reading, and writing. oCreate a new Column named 'Overall_Pass' and create a binary label: pass(1) if Student passes all heads (math, reading, and writing) and fail(0) if student has failed in even one head. oEncode categorical variables (gender, race/ethnicity, parental level of education, lunch, test preparation course) using one-hot encoding. oHandle any missing values if present. oSplit the dataset into features (x) and target (y) where the target is the pass/fail label for the math pass. oSplit the data into training (80%) sets using random state 10. 3.KNN Classification: oImplement the KNN classifier. oFind the optimal number of neighbors (k) based on the accuracy of the model. oEvaluate the model on the testing set using accuracy, sensitivity, and specificity. 4.Decision Tree Classification: oImplement the Decision Tree classifier. oFind the optimal hyperparameters such as max_depth. oEvaluate the model on the testing set using accuracy, sensitivity, and specificity. 5.Comparison and Conclusion: oCompare the performance of the KNN and Decision Tree classifiers based on the evaluation metrics. oDetermine which model performs better for this dataset. oPlot the evaluation metrics comparison for both the models.		9					
254	7	Which of the following is the correct syntax for training a Keras model?	B	1		model.train(X_train, y_train, epochs=10, batch_size=32)	model.fit(X_train, y_train, epochs=10, batch_size=32)	model.train_on_data(X_train, y_train, epochs=10, batch_size=32)	model.fit_data(X_train, y_train, epochs=10, batch_size=32)
255	7	Which of the following is a way to prevent overfitting in a Keras model?	D	1		Adding more layers	Increasing the learning rate	Decreasing the batch size	Adding dropout layers
256	7	Which of the following Keras layers can be used for image classification tasks?	A	1		Conv2D	LSTM	Dense	Dropout
257	7	What is the primary purpose of a Convolutional Neural Network (CNN)?	B	1		Object detection	Image classification	Text generation	Reinforcement learning
258	7	Which layer type is typically used to extract local features in a CNN?	A	1		Convolutional layer	Pooling layer	Fully connected layer	Activation layer
259	7	Which activation function is commonly used in the convolutional layers of a CNN?	A	1		ReLU (Rectified Linear Unit)	Sigmoid	Tanh (Hyperbolic Tangent)	Softmax
260	7	What is the purpose of the stride parameter in a convolutional layer?	A	1		To control the step size of the convolution operation	To determine the size of the receptive field	To adjust the learning rate during training	None of the above
261	7	Which layer type is used to reduce the spatial dimensions in a CNN?	B	1		Convolutional layer	Pooling layer	Fully connected layer	Activation layer
262	7	Which layer type is responsible for applying non-linear transformations to the feature maps in a CNN?	D	1		Convolutional layer	Pooling layer	Fully connected layer	Activation layer
263	7	If I put a dropout parameter of 0.2, how many nodes will I lose?	A	1		20% of them	2% of them	20% of the untrained ones	2% of the untrained ones
264	7	If my data is sized 150×150, and I use Pooling of size 2×2, what size will the resulting image be?	D	1		300×300	148x148	149x149	75x75
265	7	If my Image is sized 150×150, and I pass a 3×3 Convolution over it, what size is the resulting image?	A	1		148x148	150x150	153x153	450x450
266	7	When exploring the graphs, the loss levelled out at about .75 after 2 epochs, but the accuracy climbed close to 1.0 after 15 epochs. What's the significance of this?	B	1		There was no point training after 2 epochs, as we overfit to the validation data	There was no point training after 2 epochs, as we overfit to the training data	A bigger training set would give us better validation accuracy	A bigger validation set would give us better training accuracy
267	7	Which is the correct line of code for adding Dropout of 20% of neurons using TensorFlow	C	1		tf.keras.layers.Dropout(20)	tf.keras.layers.DropoutNeurons (20)	tf.keras.layers.Dropout(0.2)	tf.keras.layers.DropoutNeurons (0.2)
268	7	Which of the following layers in Keras is used for flattening the input?	A	1		Flatten layer	Dropout layer	Pooling layer	Permute layer

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
269	7	the Fashion MNIST dataset which contains 70,000 grayscale images in 10 categories. The images show individual articles of clothing at low resolution (28 by 28 pixels). Fashion MNIST is intended as a drop-in replacement for the classic MNIST dataset—often used as the "Hello, World" of machine learning programs for computer vision. The MNIST dataset contains images of handwritten digits (0, 1, 2, etc.) in a format identical to that of the articles of clothing you'll use here. This guide uses Fashion MNIST for variety, and because it's a slightly more challenging problem than regular MNIST. Both datasets are relatively small and are used to verify that an algorithm works as expected. Here, 60,000 images are used to train the network and 10,000 images to evaluate how accurately the network learned to classify images. You can access the Fashion MNIST directly from TensorFlow. Import and load the Fashion MNIST data directly from TensorFlow. Train the data and predict the results along with accuracy using deep learning		9					
270	7	Rock Paper Scissors contains images from various hands, from different races, ages, and genders, posed into Rock / Paper or Scissors and labeled as such. You can download the training set here and the test set from github. I also generated a few pictures that you can use for predictions. You can find them here. Note that all of these pictures use a plain white background. Each image is 300×300 pixels in 24-bit color. Train the data and predict the results along with accuracy using deep learning		9					
271	7	This Data contains around 25k images of size 150x150 distributed under 6 categories. {'buildings' -> 0, 'forest' -> 1, 'glacier' -> 2, 'mountain' -> 3, 'sea' -> 4, 'street' -> 5 } The Train, Test and Prediction data is separated in each zip files. There are around 14k images in Train, 3k in Test and 7k in Prediction. Train the data and predict the results along with accuracy using deep learning		9					
272	7	The American Sign Language alphabet contains 26 letters. Two of those letters (j and z) require movement, so they are not included in the training dataset. Train the data and predict the results along with accuracy using deep learning and CNN		9					
273	7	The accurate image classification of the MNIST dataset, a collection of 70,000 grayscale images of handwritten digits from 0 to 9, was a major development. While today the problem is considered trivial, doing image classification with MNIST has become a kind of "Hello World" for deep learning. Train the data and predict the results along with accuracy using deep learning		9					
274	7	You are required to write a Python program to implement a Convolutional Neural Network (CNN) using TensorFlow and Keras. Assume that the data preprocessing is already completed, and you have training and validation datasets ready to use. Your task is to create the CNN model, apply the necessary layers with specified parameters, compile the model, and fit it to the data. Follow the steps and specifications provided below: •Example of the Training and Validation datasets: Assuming x_train, y_train, x_valid, y_valid are already defined x_train and x_valid are the image data y_train and y_valid are the encoded labels of output data (converted into categorical data) • Import the necessary libraries. • Create a CNN model. • Add the layers to the model as specified: •First Convolutional Layer: oFilters: 75, Kernel Size: (3, 3), Activation: ReLU oInput Shape: (28, 28, 1) (assuming the images are 28x28 pixels with 1 color channels) •Batch Normalization Layer •Max Pooling Layer: Pool Size: (2, 2) •Second Convolutional Layer: oFilters: 50 oKernel Size: (3, 3) oActivation: ReLU •Batch Normalization Layer •Max Pooling Layer: Pool Size: (2, 2) •Dropout Layer: Rate: 0.25		4	LJU 2024				

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		•Third Convolutional Layer: oFilters: 25 oKernel Size: (3, 3) oActivation: ReLU •Batch Normalization Layer •Max Pooling Layer: Pool Size: (2, 2) •Flatten Layer •Dense Layer: oUnits: 512 oActivation: ReLU •Dropout Layer: Rate: 0.2 •Output Dense Layer: oUnits: 24 (assuming 24 classes for classification) oActivation: Softmax • Compile the model with the following specifications: oLoss: Categorical Crossentropy oMetrics: Accuracy • Fit the model to the training data with the following specifications: o Epochs: 5, Verbose: 1, Validation Data: Use the provided validation dataset							
275	8	What protocol can be used to retrieve web pages using python?	C	1		urllib	bs4	HTTP	GET
276	8	What provides two way communication between two different programs in a network.	A	1		socket	port	http	protocol
277	8	Which method of the socket module allows a server socket to accept requests from a client socket from another host?	A	1		socket.accept()	socket.sendto(address)	socket.acceptsocket	accept.socket()
278	8	Which method of the socket module allows you to send data to a given address?	C	1		socket.sendto(address, data)	socket.address()	socket.sendto(data, address)	socket.data
279	8	Which method of the socket module allows you to associate a host and a port with a specific socket?	B	1		The socket.sendto(PORT) method	The bind(IP,PORT) method	The bind(PORT,IP) method	The socket.accept(PORT) method
280	8	What is the difference between the TCP and UDP protocols?	D	1		TCP is compatible with Python, while UDP is not	There are no differences	TCP is not connection-oriented, while UDP is	TCP is connection-oriented, while UDP is not
281	8	Which function is used to create the socket object?	A	1		socket()	bind()	listen()	accept()
282	8	Which function is used to bind-address to the socket? It takes two arguments hostname and port number.	B	1		socket()	bind()	listen()	accept()
283	8	Which function is used to establish and start the TCP listener?	C	1		socket()	bind()	listen()	accept()
284	8	Which function is used to send the UDP messages?	A	1		sendto()	send()	recv()	recvfrom()
285	8	Which function is used to send the TCP messages?	B	1		sendto()	send()	recv()	recvfrom()
286	8	Which function is used to receive the TCP messages?	C	1		sendto()	send()	recv()	recvfrom()
287	8	Which module in Python is used for working with sockets?	D	1		api	requests	json	socket
288	8	Which of the following needs to passed as an argument in connect() function for connecting client to server?	C	1		host	port	(host , port)	(host)
289	8	Which function is used to close a socket.?	D	1		socket()	bind()	listen()	close()
290	8	Which function is used to receive the UDP messages?	D	1		sendto()	send()	recv()	recvfrom()
291	8	Which of the following libraries is used to parse data received from Open Weather Map API?	D	1		api	request	requests	json
292	8	What method in Beautiful Soup is used to find the first occurrence of a particular HTML element?	B	1		find_parent()	find()	select()	get_text()
293	8	What method in Beautiful Soup is used to find the ALL occurrence of a particular HTML element?	B	1		find_parent()	find_all()	select()	get_text()
294	8	how does one get the first header 1 tag after creating a soup object?	A	1		soup.h1	soup.header1	soup.h1[0]	soup.h1[1]
295	8	Which of the following finds all link tags?	D	1		all_links = soup.find('a')	all_links = soup.findall('a')	all_links = soup.findall('link')	all_links = soup.find_all('a')
296	8	Which format is constructed by nesting python dictionaries and lists as needed.	A	1		JSON	HTTP	HTML	XML
297	8	which function formats the Beautiful Soup parsed data, so that there each tag is on its own separate line with indentation.	A	1		prettify()	beutify()	dump()	dumpS()
298	8	Which of the function of json library is used to print a json file with required indent?	B	1		dummy()	dumps()	dummys()	dump()
299	8	Which of the following libraries is used to get response using api key from Open Weather Map api?	B	1		api	requests	json	socket
300	8	How can you extract the text content of an HTML element using BeautifulSoup?	A	1		get_text()	get_content	text_content	extract_text()

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
301	8	What will be output of following code? from bs4 import BeautifulSoup html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> This is Python Tutorial for Beautiful Soup <a href="https://www.google.com/html/HTML-tutorials.php">Learn HTML</a> <a href="https://www.google.com/css/CSS-tutorials.php">Learn CSS</a> </body> </html> """ soup = BeautifulSoup(html_doc, 'html.parser') print(soup.find('p').find('a')['href'])	D	1		<a href="https://www.google.com/html/HTML-tutorials.php">Learn HTML</a>	https://www.google.com/html/HTML-tutorials.php	This is Python Tutorial for Beautiful Soup	Error
302	8	What will be output of following code? from bs4 import BeautifulSoup html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> This is Python Tutorial for Beautiful Soup <a href="https://www.google.com/html/HTML-tutorials.php">Learn HTML</a> <a href="https://www.google.com/css/CSS-tutorials.php">Learn CSS</a> </body> </html> """ soup = BeautifulSoup(html_doc, 'html.parser') print(soup.find('body').find_all('p')[1].get_text())	C	1		Learn CSS	This is Python Tutorial for Beautiful Soup	Learn HTML	Error
303	8	Which of the following function is used to send data from client to server when socket type is SOCK_DGRAM?	B	1		send()	sendto()	get()	getfrom()

304	8	What does the below code snippet do?
		import socket
		
		def establish_connection():
		  server_address = ('127.0.0.1', 8000)
		  client_socket = socket.socket(socket.SOCK_STREAM)
		  client_socket.bind(('127.0.0.1', 8080))
		  client_socket.listen(1)
		  connection, address = client_socket.accept()
		  client_socket.close()
		
		establish_connection()
			D	1		Binds the client socket to address '127.0.0.1' and port 8080	Listens for incoming connections on address '127.0.0.1' and port 8080	Accepts a connection from a client and returns the connection object and client address	All of these

305	8	When scraping a website, you come across the following error: "HTTP Error 403: Forbidden". Which of the following could be the cause of this error?	A	1		The website has implemented measures to block web scraping activities	The website's server is temporarily down	The website's HTML structure has changed, causing the scraping script to fail	None of these
306	8	What is the default encoding of encode() function in python.	A	1		utf-8	utf-64	xml	utf-32

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
307	8	How can you extract the value of the href attribute from a link (<a> tag) using Beautiful Soup?	B	1		link.Collect ['href']	link.get('href')	link.href	link['href']
308	8	Find the correct syntax code from following codes.	A	1		import bs4 import requests url = 'https://indianexpress.com/' source = requests.get(url).text soup = bs4.BeautifulSoup(source,'html .parser') print(soup.prettify())	import bs4 import requests url = 'https://indianexpress.com/' source = requests.get(url).text soup = BeautifulSoup(source,'html.par ser') print(soup.prettify())	import requests url = 'https://indianexpress.com/' source = requests.get(url).text soup = bs4.BeautifulSoup(source,'html .parser') print(soup.prettify())	import bs4 import requests url = 'https://indianexpress.com/' source = requests(url).text soup = bs4.BeautifulSoup(soup,'html.p arser') print(soup.prettify())
309	8	write a python program to build a udp server side program		3					
310	8	write a Python program to build a tcp server-side program		3					
311	8	write a Python program to build a UDP client-side program		3					
312	8	write a Python program to build a TCP client-side program		3					
313	8	Write a Python program to build a UDP localhost host server that accepts a number from clients and returns the cube of that number to the client.		4					
314	8	Write a Python program to build a UDP localhost host server that accepts a number from clients and returns the square of that number to the client. (Only write server side program. No need to write the client side program)		4					
315	8	Write a Python program to build a UDP host server that accepts a message from clients and returns the same message to the client. Write programs for both the server and client side.		4					
316	8	Write a Python program to build a TCP host server that accepts a message from clients and returns the same message to the client. Write programs for both the server and client side.		4					
317	8	write a program for making HTTP requests with sockets in Python. Make a socket to receive the data from the link: “ https://www.ljku.edu.in/lju-at-a-glance ”		4					
318	8	Using Open Weather Map API, generate current air pollution data for Ahmedabad and extract detail of aqi.		3					
319	8	Using the Open Weather Map API, generate a 3 Hourly 5 Days weather forecast for Ahmedabad with all details in JSON format. Note: Request for all the data via API in metric units.		4					
320	8	Using the Open Weather Map API, find the location of ahmedabad		3					
321	8	Using the Open Weather Map API, find the wind_speed of ahmedabad		4					
322	8	Using the Open Weather Map API, generate a 3 hourly 5 days weather forecast for Ahmedabad with details like minimum temperature, maximum temperature, wind speed, humidity, and weather description. Display this data in the form of a Pandas data frame with the column names being date_time, min_temp, max_temp, wind_speed, humidity, and weather_description.		5					
323	8	Write a Python program using beautiful soup to scrape all the news headlines in the div class “top news” from https://indianexpress.com/		5					
324	8	Write a program for web scrapping using BeautifulSoup to scrape the following details from the given link and make a data frame using that scraped data from the page in a given link. Link: https://www.politifact.com/factchecks You will find 30 news articles with fact checks on this page. You need to scrape the following details from all the articles and store that in a data frame. Statement of News, Date of News, Source of News.		6					
325	8	Write a program of web scrapping using BeautifulSoup to scrape the given data from the following link. https://editorial.rottentomatoes.com/guide/popular-movies/ On the above link, you’ll find 30 Popular movies. Scrape the Movie Title and Rating of that particular movie and make a Dataframe of the same.		5					

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Sr. No.	**unit_number**	**question_text**	**answer_text**	**marks**	**previous_year**	**option1 (A)**	**option2 (B)**	**option3 (C)**	**option4 (D)**
326	8	Write a Python program to find the title tags from a given html document. html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc at nisi velit, aliquet iaculis est. Curabitur porttitor nisi vel lacus euismod egestas. In hac habitasse platea dictumst. In sagittis magna eu odio interdum mollis. Phasellus sagittis pulvinar facilisis. Donec vel odio volutpat tortor volutpat commodo. Donec vehicula vulputate sem, vel iaculis urna molestie eget. Sed pellentesque adipiscing tortor, at condimentum elit elementum sed. Mauris dignissim elementum nunc, non elementum felis condimentum eu. In in turpis quis erat imperdiet vulputate. Pellentesque mauris turpis, dignissim sed iaculis eu, euismod eget ipsum. Vivamus mollis adipiscing viverra. Morbi at sem eget nisl euismod porta. <a href="https://www.w3resource.com/html/HTML-tutorials.php">Learn HTML from w3resource.com</a> <a href="https://www.w3resource.com/css/CSS-tutorials.php">Learn CSS from w3resource.com</a> </body> </html> """		3					
327	8	Write a Python program to retrieve all the paragraph tags from a given HTML document. html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc at nisi velit, aliquet iaculis est. Curabitur porttitor nisi vel lacus euismod egestas. In hac habitasse platea dictumst. In sagittis magna eu odio interdum mollis. Phasellus sagittis pulvinar facilisis. Donec vel odio volutpat tortor volutpat commodo. Donec vehicula vulputate sem, vel iaculis urna molestie eget. Sed pellentesque adipiscing tortor, at condimentum elit elementum sed. Mauris dignissim elementum nunc, non elementum felis condimentum eu. In in turpis quis erat imperdiet vulputate. Pellentesque mauris turpis, dignissim sed iaculis eu, euismod eget ipsum. Vivamus mollis adipiscing viverra. Morbi at sem eget nisl euismod porta. <a href="https://www.w3resource.com/html/HTML-tutorials.php">Learn HTML from w3resource.com</a> <a href="https://www.w3resource.com/css/CSS-tutorials.php">Learn CSS from w3resource.com</a> </body> </html> """		3					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
328	8	Write a Python program to get the number of paragraph tags of a given html document. html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc at nisi velit, aliquet iaculis est. Curabitur porttitor nisi vel lacus euismod egestas. In hac habitasse platea dictumst. In sagittis magna eu odio interdum mollis. Phasellus sagittis pulvinar facilisis. Donec vel odio volutpat tortor volutpat commodo. Donec vehicula vulputate sem, vel iaculis urna molestie eget. Sed pellentesque adipiscing tortor, at condimentum elit elementum sed. Mauris dignissim elementum nunc, non elementum felis condimentum eu. In in turpis quis erat imperdiet vulputate. Pellentesque mauris turpis, dignissim sed iaculis eu, euismod eget ipsum. Vivamus mollis adipiscing viverra. Morbi at sem eget nisl euismod porta. <a href="https://www.w3resource.com/html/HTML-tutorials.php">Learn HTML from w3resource.com</a> <a href="https://www.w3resource.com/css/CSS-tutorials.php">Learn CSS from w3resource.com</a> </body> </html> """		3					
329	8	Write a Python program to extract the text in the first paragraph tag of a given HTML document. html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc at nisi velit, aliquet iaculis est. Curabitur porttitor nisi vel lacus euismod egestas. In hac habitasse platea dictumst. In sagittis magna eu odio interdum mollis. Phasellus sagittis pulvinar facilisis. Donec vel odio volutpat tortor volutpat commodo. Donec vehicula vulputate sem, vel iaculis urna molestie eget. Sed pellentesque adipiscing tortor, at condimentum elit elementum sed. Mauris dignissim elementum nunc, non elementum felis condimentum eu. In in turpis quis erat imperdiet vulputate. Pellentesque mauris turpis, dignissim sed iaculis eu, euismod eget ipsum. Vivamus mollis adipiscing viverra. Morbi at sem eget nisl euismod porta. <a href="https://www.w3resource.com/html/HTML-tutorials.php">Learn HTML from w3resource.com</a> <a href="https://www.w3resource.com/css/CSS-tutorials.php">Learn CSS from w3resource.com</a> </body> </html> """		3					
330	8	Write a Python program to find the length of the text of the first <h2> tag of a given html document html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc at nisi velit, aliquet iaculis est. Curabitur porttitor nisi vel lacus euismod egestas. In hac habitasse platea dictumst. In sagittis magna eu odio interdum mollis. Phasellus sagittis pulvinar facilisis. Donec vel odio volutpat tortor volutpat commodo. Donec vehicula vulputate sem, vel iaculis urna molestie eget. Sed pellentesque adipiscing tortor, at condimentum elit elementum sed. Mauris dignissim elementum nunc, non elementum felis condimentum eu. In in turpis quis erat imperdiet vulputate. Pellentesque mauris turpis, dignissim sed iaculis eu, euismod eget ipsum. Vivamus mollis adipiscing viverra. Morbi at sem eget nisl euismod porta. <a href="https://www.w3resource.com/html/HTML-tutorials.php">Learn HTML from w3resource.com</a> <a href="https://www.w3resource.com/css/CSS-tutorials.php">Learn CSS from w3resource.com</a> </body> </html> """		3					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
331	8	Write a Python program to find the text of the first <a> tag of a given html text. html_doc = """ <html> <head> <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1"> <title>An example of HTML page</title> </head> <body> <h2>This is an example HTML page</h2> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc at nisi velit, aliquet iaculis est. Curabitur porttitor nisi vel lacus euismod egestas. In hac habitasse platea dictumst. In sagittis magna eu odio interdum mollis. Phasellus sagittis pulvinar facilisis. Donec vel odio volutpat tortor volutpat commodo. Donec vehicula vulputate sem, vel iaculis urna molestie eget. Sed pellentesque adipiscing tortor, at condimentum elit elementum sed. Mauris dignissim elementum nunc, non elementum felis condimentum eu. In in turpis quis erat imperdiet vulputate. Pellentesque mauris turpis, dignissim sed iaculis eu, euismod eget ipsum. Vivamus mollis adipiscing viverra. Morbi at sem eget nisl euismod porta. <a href="https://www.w3resource.com/html/HTML-tutorials.php">Learn HTML from w3resource.com</a> <a href="https://www.w3resource.com/css/CSS-tutorials.php">Learn CSS from w3resource.com</a> </body> </html> """		3					
332	8	Write a Python program to extract all the URLs from the webpage python.org that are nested within <li> tags from.		5					
333	8	Write a Python program to find all the h2 tags and list the first four from the webpage python.org.		5					
334	8	Find all the link tags and list the first ten from the webpage python.org		4					
335	8	Write a Python program to a list of all the h1, h2, h3 tags from the webpage python.org.		4					
336	8	Write a Python program to extract all the text from a given web page python.org.		3					
337	8	How to get the Daily News using Python. url='https://www.bbc.com/news'		5					
338	8	Find the title of the webpage. url = 'https://en.wikipedia.org/wiki/Python_(programming_language)'		4					
339	8	Find all the links on the page and print their URLs. url = 'https://en.wikipedia.org/wiki/Python_(programming_language)'		4					
340	8	Find the first paragraph on the page and print its text. url = 'https://en.wikipedia.org/wiki/Python_(programming_language)'		4					
341	8	Find all the headings on the page and print their text. url = 'https://en.wikipedia.org/wiki/Python_(programming_language)'		5					
342	8	Find the table on the page and its rows, Extract the data from each row, and print it url = 'https://en.wikipedia.org/wiki/List_of_countries_and_dependencies_by_population'		5					
343	8	Find all the citation needed tags on the page.url = 'https://en.wikipedia.org/wiki/Python_(programming_language)' using Beautiful soup.		5					
344	8	You have been provided with html file named 'Scrape_this.html'. Scrape the mentioned data from the given html page using Beautiful soup. Company Name / Current Price / Change % / Low / High / Value (₹ Cr.) / Volume (in 000's) Vodafone Idea 7.75 1.44% 7.33 7.88 35.47 45,763.0(Reliance Power 15.01 -4.52% 14.82 15.62 31.44 20,947.3: Yes Bank 16.21 -0.12% 16.15 16.35 16.25 10,026.8' NHPC 45.80 0.57% 45.62 46.82 23.52 5,136.20 IDFC First Bank 82.17 1.11% 81.51 84.35 38.62 4,699.80 PNB 52.88 1.73% 51.83 53.23 21.10 3,990.91 Zee Entertainment 180.35 -2.67% 176.00 188.35 71.06 3,940.34 Tata Steel 113.90 -0.09% 112.85 114.85 36.42 3,197.60 NBCC (India) 40.86 -0.78% 40.66 41.93 10.55 2,581.07 Motherson Sumi Sys 85.90 5.84% 82.41 86.15 19.55 2,275.35 HDFC Bank 1635.80 2.00% 1611.50 1637.00 355.57 2,173.68 MRPL 76.83 -2.38% 75.70 79.00 15.41 2,005.35 REC 163.80 7.02% 160.70 168.70 27.37 1,670.93 Edelweiss Financial 51.05 -0.62% 50.70 53.55 8.27 1,619.51 L&T Finance Holdings 123.55 4.61% 121.75 126.85 19.63 1,589.17 Above is the example of how your html file will look like. You need to scrape the data from the above table given in html file. You need to scrape the data of all the columns which are highlighted with a black box in above image. •You need to scrape Company Name, hyperlink ('href' link) of company name, Current Price, Value and Volume for all the companies given in the html page. And make a Dataframe combining all the scraped data using pandas. Your output Dataframe should look like below:		9					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)

	Company Name	Company Link	Current Price	Value	Volume
0	Vodafone Idea	https://www.ndtv.com/business/stock/vodafone-i...	7.75	35.47	45,763.00
1	Reliance Power	https://www.ndtv.com/business/stock/reliance-p...	15.01	31.44	20,947.33
2	Yes Bank	https://www.ndtv.com/business/stock/yes-bank-l...	16.21	16.25	10,026.87
3	NHPC	https://www.ndtv.com/business/stock/nhpc-ltd_nhpc	45.80	23.52	5,136.20
4	IDFC First Bank	https://www.ndtv.com/business/stock/idfc-first...	82.17	38.62	4,699.80
...	...	...	...	...	...
190	MRF	https://www.ndtv.com/business/stock/mrf-ltd_mrf	100429.90	4.73	0.47
191	P&G Hygiene	https://www.ndtv.com/business/stock/procter-ga...	13961.40	0.52	0.37
192	3M India	https://www.ndtv.com/business/stock/3m-india-l...	27181.25	0.82	0.30
193	Abbott India	https://www.ndtv.com/business/stock/abbott-ind...	22685.05	0.64	0.28
194	Bajaj Hold & Invest	https://www.ndtv.com/business/stock/bajaj-hold...	7005.10	0.16	0.23

195 rows × 5 columns

Note: While making a Dataframe store the data of 'Current Price' and 'Value' Columns in a Float Datatype.

After creating a Dataframe,
•Check for any Null values, remove rows if any.
•Remove Duplicate rows if there are any.
•Find and remove outliers from the 'Current Price' column.

Then make a Simper Linear Regression Model using sklearn library,
Where, X=column named 'Value' and Y=column named 'Current Price'.
•Use 20% as test size while you split the data.
•Find co-efficient and intercept of the model.
•Find Mean Squared Error of the model.

-->If you are unable to complete the scraping, you can also attempt Linear Regression by using the data from sample image shown in output format as well. Marks will be given accordingly.

345 | 8 | Part-1: (4 marks) | | 9 | | | | |

Write a python code to scrape data from the file 'imdb.html', the file contains the list of upcoming movies to be released in India in year 2023 and 2024. Scrape the data to get the movie name and year. Create a DataFrame having columns containing movie name and year.

Expected Outcome:

	Movie	Year
0	1920: Horrors of the Heart	2023
1	Dhoomam	2023
2	Shivaji Surathkal 2	2023
3	Maidaan	2023
4	Thandatti	2023
...	...	...
149	Nadada	2024
150	Devara	2024
151	Bade Miyan Chote Miyan	2024
152	Sheran Di Kaum Punjabi	2024
153	Thalapathy 68	2024

154 rows × 2 columns

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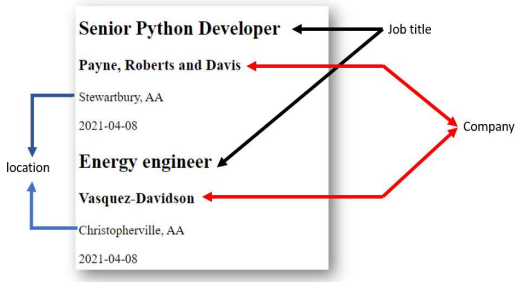
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		Part-2 (5 marks) The dataset provided in 'kc_house_data.csv' contains house sale prices for King County, which includes Seattle. It includes homes sold between May 2014 and May 2015Perform the following tasks : 1) Load the csv to a dataframe named 'house_survey'. 2) Display the first 5 rows of the dataframe. 3) Drop the columns "id" and "Unnamed: 0" 4) Check all the null values present in all the columns of the dataframe. 5) Fill the missing values of the column 'bedrooms' with the mean of the column. 6) Fill the missing values of the column 'bathrooms' with the mean of the column. 7) Use the Pandas method corr() to find the feature other than price that is most correlated with price and mention your answer as a comment. 8) Fit a linear regression model to predict the 'price' using the list of features: ["floors", "waterfront","lat" ,"bedrooms" ,"sqft_basement" ,"view" ,"bathrooms","sqft_living15" ,"sqft_above","grade","sqft_living"] 9) Consider 30% testing samples and use random state 10. 10) Find the Mean Squared Error.							
346	8	Write a python program to extract title, story and links as per given output from file named 'html1.html'. Required Output: The Dormouse's story Once upon a time there were three little sisters; and their names were Elsie, Lacie and Tillie; and they lived at the bottom of a well. [<a class="sister" href="http://example.com/elsie" id="link1">Elsie</a>, <a class="sister" href="http://example.com/lacie" id="link2">Lacie</a>, <a class="sister" href="http://example.com/tillie" id="link3">Tillie</a>] (Print output wherever required)		4					
347	8	For the given fakepython html file, write a python program using BeautifulSoup library and perform following tasks - 1. Extract all Python related job titles and print them. 2. Extract all job titles, locations and companies and print them. Example of job title, location and company from fakepython html is given below –  		4					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
348	8	Write a Program of Web scraping using BeautifulSoup to scrape the given data from the given HTML file. In the given HTML file, you'll find 50 Movies. Scrape the Movie Title, Year and Rating of that particular movie and make a DataFrame of the same. Sample Snippet of Output: Title Year Rating 0 Succession (2018–2023) 8.9 1 Spider-Man: Into the Spider-Verse (2018) 8.4 2 Manifest (2018–2023) 7.1 3 Barry (2018–2023) 8.4 4 Yellowstone (2018–2023) 8.7 5 The Rookie (2018–) 8.0 6 Tom Clancy's Jack Ryan (2018–2023) 8.0 7 Mayans M.C. (2018–) 7.6 8 9-1-1 (2018–) 7.9 9 You (2018–2024) 7.7 10 New Amsterdam (2018–2023) 8.0		4					
349	8	Write a Python program to build a UDP localhost host server that accepts a number from client and returns the square of that number to the client. (write server side program only)		4					
350	8	Using Open Weather Map API, generate current weather data for Delhi and extract detail of pressure, humidity, sea_level, visibility, timezone, sunset, description, speed. latitude and longitude of delhi is given below: lat= 28.6517178 lon= 77.2219388 API KEY : 9903d45b0c6a6259e1bcd8bb4e3daaec API call: https://api.openweathermap.org/data/2.5/weather?lat={lat}&lon={lon}&appid={API key}		4					
351	8	For the given web page "Certified used Mercedes-Benz for sale.html" scrape the dataof car Name, Mileage, Dealer name,Review Count and Price. Create Dataframe for that. Expexted Output of dataframe.head is : NameMileageDealer NameReview CountPrice 02020 Mercedes-Benz CLA 250 Base 4MATIC28,744 mi.Mercedes-Benz of Lynnwood130$35,995 12019 Mercedes-Benz AMG GT 53 Base25,771 mi.International Autos117$79,995 22021 Mercedes-Benz AMG GLE 53 Base22,374 mi.John Sisson Motors38$80,923 32022 Mercedes-Benz AMG CLA 45 Base 4MATIC10,595 mi.Mercedes-Benz of Santa Rosa30$56,633 42021 Mercedes-Benz AMG GLE 53 Base33,622 mi.Mercedes-Benz of Rochester152$76,995		5					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)

352	8	Using Open Weather Map API, generate current air pollution data for Delhi and extract detail of “nh3”
		lat=23.05
		lon=14.05
		API call request: http://api.openweathermap.org/data/2.5/air_pollution?lat={lat}&lon={lon}&appid={API key}
		Example of the API response:
		{
		"coord":[
		50,
		50
		],
		"list":[
		{
		"dt":1605182400,
		"main":{
		"aqi":500
		},
		"components":{
		"co":201.94053649902344,
		"no":0.0187719706459324,
		"no2":0.7711350917816162,
		"o3":68.66455078125,
		"so2":0.6407499313354492,
		"pm2_5":0.5,
		"pm10":0.540438711643219,
		"nh3":0.12369127571582794
		}
				3					

353	8	Write a Python program to build Simple HTTP Server in Python		3					
354	8	To Scrape a Table From the below file using Beautiful Soup and make a data frame and print it. “Today 52 Week Low BSE_NSE Stocks Companies List – Ticker.html” Write a program to create a Model using linear regression to predict the 'Day Low Rs.' using the "price Rs.". Find coefficient, intercept, and mean squared error. Data Frame Output: `print(df)` S.No. Company price Rs. Day Low Rs. 0 1 Rachana Infrastru 125.70 113.80 1 2 Tirupati Forge 7.80 7.75 2 3 Sera Investments&Fin 13.01 13.01 3 4 Viaz Tyres 46.35 45.00 4 5 Sellwin Traders 13.00 12.01 5 6 Soni Medicare 19.22 17.40 6 7 Sicagen India 24.35 24.00 7 8 Aspira Pathlab&Diagn 24.85 24.80 8 9 Patspin India 14.10 14.00 9 10 AG Universal 42.10 42.00 10 11 Arihant Foundn. &Hsg 39.65 38.50 11 12 Global Offshore Serv 7.85 7.75 12 13 GTN Textiles 19.50 19.50 13 14 GTN Inds 11.95 11.50 14 15 Vivanza Biosciences 8.33 8.33 15 16 TECIL Chem & Hydro 21.60 20.70 16 17 Milgrey Fin.&Invest 16.29 14.81 17 18 Zodiac-JRD-MKJ 31.95 31.50 18 19 Kanungo Financiers 5.35 4.85 19 20 CIL Nova Petro 16.05 15.25 20 21 Integ.Pro 8.81 8.81 21 22 Elango Inds 5.55 5.55 22 23 Voltaire Leasing 11.99 11.54 Note: if you are not able to collect the data from web scraping. Make a data frame using a dictionary with a “price Rs.” And “Day Low Rs.”		9					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
355	9	Write a Program for Web scraping using BeautifulSoup to scrape the given data from the given HTML file named 'Popular_Quotes.html'. In the given HTML file, you'll find 30 Quotes. Scrape the Quote, Author and no of Likes of that particular Quote and make a DataFrame of the same. Sample Snippet of Output: Quotes / Author / Likes 0 "Be yourself; everyone else is already taken." Oscar Wilde 172090 1 "I'm selfish, impatient and a little insecure.... Marilyn Monroe 162993 2 "So many books, so little time." Frank Zappa 147069 3 "Two things are infinite: the universe and hum... Albert Einstein 146082 4 "A room without books is like a body without a... Marcus Tullius Cicero 133363 5 "Be who you are and say what you feel, because... Bernard M. Baruch 128599 6 "You've gotta dance like there's nobody watchi... William W. Purkey 127116 7 "You know you're in love when you can't fall a... Dr. Seuss 124987 8 "You only live once, but if you do it right, o... Mae West 117240 9 "Be the change that you wish to see in the wor... Mahatma Gandhi 113213 10 "In three words I can sum up everything I've l... Robert Frost 108002 11 "If you want to know what a man's like, take a... J.K. Rowling, 100983 12 "Don't walk in front of me... I may not followDo... Albert Camus 92274 13 "If you tell the truth, you don't have to reme... Mark Twain 90869 14 "Friendship ... is born at the moment when one... C.S. Lewis, 87553 15 "I've learned that people will forget what you... Maya Angelou 87398		9	LJU 2024				
356	9	What is Django used for?	C	1		Machine learning	Game development	Web development	Data analysis
357	9	What is Django in python?	A	1	LJU 2023	A framework	A library	A function	A script
358	9	What is the default database used in Django?	B	1		Oracle	SQLite	PostgreSQL	MySQL
359	9	What is Django's template language used for?	C	1		Data validation	URL routing	Dynamic HTML generation	Object-Relational Mapping
360	9	What is Django's admin app used for?	D	1		Generating dynamic HTML	Handling user authentication	Serving static files	Providing an interface for managing application data
361	9	How do you run database migrations in Django?	A	1	LJU 2023	python manage.py migrate	python migrate manage.py	django migrate	django manage.py migrate
362	9	What is the purpose of the "urls.py" file in Django?	A	1	LJU 2024	To store the project's URL configurations	To store project-level settings	To store app-level settings	To store the project's static files
363	9	How do you make a Django model available for use in the admin interface?	A	1	LJU 2024	By registering the model in the "admin.py" file of the app	By registering the model in the "settings.py" file of the project	By registering the model in the "models.py" file of the app	By registering the model in the "urls.py" file of the project
364	9	What is the purpose of the "views.py" file in Django?	D	1		To store the project's URL configurations	To store the project's models	To store the project's static files	To store the project's views
365	9	What is the purpose of the "forms.py" file in Django?	C	1		To store the project's models	To store the project's views	To store the project's forms	To store the project's URL configurations
366	9	What is the purpose of the "settings.py" file in Django?	B	1	LJU 2024	To store app-level settings	To store project-level settings	To store the project's URL configurations	To store the project's static files
367	9	How do you run the development server in Django?	A	1		python manage.py runserver	python runserver manage.py	django runserver	django manage.py runserver
368	9	What is the purpose of the "migrations" folder in Django?	D	1		To store the project's views	To store the project's models	To store the project's static files	To store the project's database migrations
369	9	What is the purpose of the "__init__.py" file in Django?	C	1	LJU 2023	To store the app's models	To store the app's views	To initialize the app	To store the app's forms
370	9	What are the features available in Django web framework?	D	1		Form handling	Templating	Admin Interface (CRUD)	All of the listed
371	9	What does {{ name }} mean in Django Templates?	C	1		{{ name }} will be the output.	It will be displayed as name in HTML.	The name will be replaced with values of Python variable.	None of the above
372	9	Which of the following is used If you need to deploy your project over WSGI?	A	1		wsgi.py	manage.py	models.py	settings.py
373	9	Which Django template tag is used to loop through a list of items?	A	1	LJU 2023, LJU 2024	{% for item in items %}	{% loop items %}	{% iterate items %}	{% list items %}
374	9	In which language is Django written?	A	1		PYTHON	PHP	JAVA	C++
375	9	Which Django command is used to create a new Django project?	C	1		StartProject	createproject	startproject	newproject
376	9	What is the primary purpose of the makemigrations command in Django?	A	1	LJU 2023	To apply migrations to the database	To execute SQL queries for creating database tables	To create a superuser for the Django admin site	To run unit tests for your Django app
377	9	In Django, what is the primary purpose of the TEMPLATES_DIRS setting?	A	1	LJU 2023	It defines the location(s) where Django looks for templates.	It lists all installed apps in the project.	It defines the URL patterns for a Django project.	It configures the project's settings.

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
378	9	Create Home page with logo and create about page ,put the link of about page in home page using Django.		6					
379	9	Make a student name search form by roll number using Django		10					
380	9	Create web page for book search by auther name or book name using django.		10					
381	10	What is Django's forms module used for?	B	1		URL routing	Data validation and form generation	Dynamic HTML generation	Object-Relational Mapping
382	10	What does CSRF stand for?	B	1	LJU 2024	Cross-Site Request Fraud	Cross-Site Request Forgery	Cross-Site Request Firewall	Cross-Site Response Forgery
383	10	How does Django protect against CSRF (Cross-Site Request Forgery) attacks?	C	1		By using a secret key	By using SSL/TLS	By using a unique token for each request	By using a fixed path
384	10	How does Django handle user authentication?	B	1		Through the use of a custom authentication backend	By providing a built-in authentication system	By relying on an external authentication service	By using the Django ORM
385	10	How to Ensure that you have installed Django successfully?	A	1		python -m django	python -m	python django	python -m Django
386	10	Which function is used to redirect users to a different URL in Django?	B	1		send_redirect	redirect	go_to	forward
387	10	What is the purpose of the authenticate function in Django?	B	1		It creates a new user.	It checks if a user is authenticated.	It logs a user in.	It logs a user out.
388	10	In Django Template Language, how can you check if a user is authenticated?	B	1	LJU 2023	user_logged_in	is_authenticated	check_authentication	is_logged_in
389	10	Which Django form is commonly used for user registration and account creation?	C	1	LJU 2024	UserForm	RegisterForm	UserCreationForm	SignupForm
390	10	Which Django form is typically used for user login and authentication?	B	1		UserLoginForm	AuthenticationForm	UserLoginForm	AuthForm
391	10	How do you typically check for a unique username during user registration (sign-up) in Django?	C	1		Use the is_unique method on the username field.	Add a custom validation function to the username field.	Django automatically enforces unique usernames by default.	Use the unique attribute in the form field definition.
392	10	In Django, which function is responsible for verifying a user's credentials during the login process?	A	1	LJU 2023	authenticate	create_user	user_login	validate_user
393	10	What does the `logout` function do in Django's authentication system?	D	1		Logs a user in	Checks if a user is authenticated	Prevents Cross-Site Request Forgery (CSRF) attacks	Logs a user out
394	10	What is the primary function of the `login` function in Django's authentication system during the login process?	C	1		It generates a new session ID.	It logs the user out.	It logs the user in.	It retrieves the user's profile information.
395	10	Which HTTP request method is commonly used for submitting form data in Django?	B	1	LJU 2023, LJU 2024	DELETE	POST	PUT	CONNECT
396	10	What is the primary purpose of Django's ORM (Object-Relational Mapping) in a web application built using the Django framework?	A	1		To define and interact with the database schema using Python code	To handle HTTP requests and responses	To handle asynchronous tasks in the background	To manage user authentication and authorization
397	10	Find the error in the following Django URL pattern configuration: from django.urls import path from . import views urlpatterns = [path('about/', views.about_view, name='about-page'), path('contact/', views.contact_view, name='contact-page'), path('products/<int:product_id>/', views.product_detail, name='product-detail'), path('categories/<str:category>/', views.category_view, name='category-page'), path('search/<str:keyword>/', views.search_view, name='search-page'), path('about/', views.contact_view, name='contact-page'), path('cart/<int:cart_id>/', views.cart_view, name='cart-page'), path('checkout/<int:order_id>/', views.checkout_view, name='checkout-page'),]	B	1		The path('about/', views.contact_view, name='contact-page') line is missing the leading forward slash (/) in the URL pattern	The path('about/', views.contact_view, name='contact-page') line is duplicated.	The path('search/<str:keyword>/', views.search_view, name='search-page') line should use <slug:keyword> instead of <str:keyword>	The path('cart/<int:cart_id>/', views.cart_view, name='cart-page') line should use <str:cart_id> instead of <int:cart_id>
398	10	By default, which HTTP method is protected by Django's CSRF protection?	B	1		PUT	POST	DELETE	GET
399	10	Which Django template tag is used for including the content of another template within a template file?	B	1		{% extend %}	{% include %}	{% block %}	{% including %}
400	10	How do you run database migrations in Django?	B	1		python manage.py migrate	python migrate manage.py	django migrate	Django-admin migrate
401	10	Which file is kind of your project local django-admin for interacting with your project via command line?	A	1	LJU 2024	manage.py	admin.py	urls.py	models.py

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Sr. No.	**unit_number**	**question_text**	**answer_text**	**marks**	**previous_year**	**option1 (A)**	**option2 (B)**	**option3 (C)**	**option4 (D)**
402	10	Build a Customer Relationship Management (CRM) App using Django need to cover following Contents in project: 1)Introduction 2)Installation and App Setup 3)Build Out the Basic App 4)Login Users 5)Logout Users 6)Register Users 7)View Records on Website 8)Individual Records 9)Add New Records		9					
403	10	Build an expense tracker app in Django •Set up your project •create database with user login, signup and logout functionalities •Add data •Design your report by fetching data		9					
404	10	Building a Blog Application using Django Key features of the project - 1. Creating and Retrieving blogs and authentication 2. Only admin can delete the posts 3. Change password and Contact Form		9					
405	10	Creating a Hotel Booking System using Django need to cover following Contents in project: Step 1: Install Django: Step 2: Create a New Django Project: Step 3: Create a New Django App: Step 4: Define Models: Step 5: Register Models: Step 6: Create Views and Templates: Step 7: Create URLs: Step 8: Create Forms: Step 9: Implement User Authentication: Step 10: Create User Registration View: Step 11: Create Navbar Template: Step 12: Integrate Rating System: Step 13: Create Reviews Page: Step 14: Include Navbar and Rating in Templates: Step 15: Handle Bookings and Payments: Step 16: Create superuser		9					
406	10	Building a User Login System for an Online Music Streaming Service In this project, you'll help Lushlyrics, a leading online music streaming service, enhance the security of its web application. You'll implement user authentication and authorization, working on a production-level website developed using the Django framework. Your primary goals are to secure the company's website and create a seamless customer registration and login experience. You'll develop an alternative version of the Lushlyrics site with signup/login functionality.		9					
407	10	Building an E-learning Platform using Django Create a platform for teachers to upload and schedule - notes, flowcharts, diagrams, videos, presentations, and others. Educators should be allowed to plan, organize, and display the curriculum for upcoming weeks for increased transparency.		9					
408	10	Creating a Contacts List Web App using Django •Create and deploy a new Django contacts list project •Create a new app in your contacts list project •Understand the model-view concept in Django and create a new view •Create a new model •Register your model in the admin app and access the model via admin •Create a view that displays all contacts data		9					

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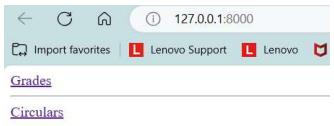
Sr. No.	**unit_number**	**question_text**	**answer_text**	**marks**	**previous_year**	**option1 (A)**	**option2 (B)**	**option3 (C)**	**option4 (D)**
409	10	Create views for login, signup and logout functionality in views.py file, assuming that you have html files named 'login.html', 'signup.html' and 'logout.html' respectively in templates folder in current app. Assume that form passes post request when login or signup button is pressed. -Following are the required modules, which needs to be imported for this functionality. from django.shortcuts import render from django.contrib.auth.models import User from django.contrib.auth.forms import AuthenticationForm, UserCreationForm from django.contrib.auth import login, logout, authenticate from django.shortcuts import redirect		5	LJU 2023, LJU 2024				
410	10	You are tasked with developing a simple Django web application to manage a library's book catalogue. The application should have two model classes, a view function, and necessary variables. Please note that the default code generated when creating a Django project/app is not to be included. Model Classes: 1.Book •Create a model class named Book with the following attributes: •title (CharField): A field for the title of the book, with a maximum length of 100 characters. •author (CharField): A field for the author's name, with a maximum length of 50 characters. 2.Borrower •Create another model class named Borrower with the following attributes: •name (CharField): A field for the name of the borrower, with a maximum length of 100 characters. •email (EmailField): A field for the borrower's email address, ensuring it's a valid email format. View Function: Write a view function named list_books that retrieves all books from the database and displays them in a template. Ensure that the template includes the book title, author, and publication year for each book. Styling for HTML code is not required. Necessary Variables: In your Django project settings (settings.py), assume you have configured the database settings correctly with an SQLite database and have created an app named library. Additionally, you can assume that Django's core settings, including the INSTALLED_APPS and URL routing, are properly set up already.		5					
411	10	Make a small website project using Django which has following functionality. 1). On the home page of the website, there should be 2 links called Grades and Circulars. 2). If you click on the Grades, you'll be redirected to a page where a table of marksheet will be displayed by extracting the data from Database stored in Django admin. Also, it should have functionality to search particular grades by passing name in search box. There will also be a link of circulars to redirect the page to circulars page. 3). If you click on a Circulars, the page should redirect to a page where circular will be displayed. There will also be a link of circulars to redirect the page to grades page. -You need to create a project named studentcorner. -You need to create an application called grades, which will contain page number 1 and 2 mentioned above. -You need to create another application called circulars, which will contain page number 3 mentioned above. -Create superuser and keep your roll no. as username and enrollment no. as password. (This is compulsory, otherwise marks will not be given.) Note: Data in the table of grades page needs to be displayed only by extracting it from the database stored in the admin page of your project. Static data in html file will not be considered. The home page should look like:  The Grades page should look like if all data are inserted in database:		9					

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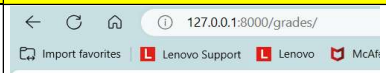
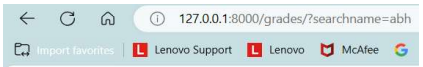
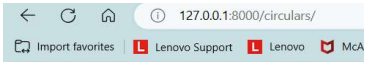
Note: The Practice Book is for reference only, LJU Test paper may not be compulsory set from this									
Sr. No.	**unit_number**	**question_text**	**answer_text**	**marks**	**previous_year**	**option1 (A)**	**option2 (B)**	**option3 (C)**	**option4 (D)**
		 Search by name: Search Name | Roll No. | Semester | Date | SPI Abhinav Mishra | 1 | 4 | Sept. 3, 2023 | 9.6 Kumud Pandya | 2 | 4 | Sept. 1, 2023 | 9.4 Hinal Shah | 3 | 4 | Sept. 17, 2023 | 9.3 Bhumit Vora | 4 | 4 | Sept. 15, 2023 | 9.0 Dhwani Sharma | 5 | 4 | Sept. 13, 2023 | 8.4 Circulars If we search, 'abh' in search bar, it should display like below:  Search by name: Search Name | Roll No. | Semester | Date | SPI Abhinav Mishra | 1 | 4 | Sept. 3, 2023 | 9.6 Circulars Circular page should look like below:  **No Circulars to Display** Grades Template for search box and table: <form action=""> <label>Search by name:</label> <input type="search" name="q" /> <button type="submit">Search</button> </form> <table border="1"> <tr> <th> Heading1 </th> <th> Heading2 </th> <th> Heading3 </th> <th> Heading4 </th> <th> Heading5 </th> </tr> <tr> <td> content1 </td> <td> content2 </td> <td> content3 </td> <td> content4 </td> <td> content5 </td> </tr> If you want, you can add multiple rows same way. •No Marks will be given if your local server open with an error, no marks of logic will be given.							

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<table>
<tr><th>Sr. No.</th><th>unit_number</th><th>question_text</th><th>answer_text</th><th>marks</th><th>previous_year</th><th>option1 (A)</th><th>option2 (B)</th><th>option3 (C)</th><th>option4 (D)</th></tr>
<tr><td>412</td><td>10</td><td>Create a Python Django Project with your firstname, lastname, div and roll no.
For example:
Suppose your firstname is Chetan, lastname is Yadav, div is C8 and roll no. is 125
Hence the folder name formed should be :
ChetanYadavC8125
The above example is an example you consider your example
Follow the following steps:
1. Create an app called findmovie. This includes all steps like registering the new app and running the server.
2. Create a model named Movie with attributes title, year, description and director where title, description and director are character fields and year is an integer field. The maximum length of title, description and director are 100, 250 and 100 respectively. Migrate all sqlite tables.
3. Create a superuser with your RollNo like 125 and password should be lju123456.
4. Login to Django Admin Portal with this user and enter the following data in the Movie table:

<table><tr><th>Movie Title</th><th>Director</th><th>Year</th><th>Description</th></tr><tr><td>Gadar 2</td><td>Anil Sharma</td><td>2023</td><td>Gadar 2 is a 2023 Indian Hindi-language period action drama film.</td></tr><tr><td>Bajrangi Bhaijaan</td><td>Kabir Khan</td><td>2015</td><td>Bajrangi Bhaijaan is a 2015 Indian Hindi-language comedy-drama film.</td></tr><tr><td>Pathaan</td><td>Siddharth Anand</td><td>2023</td><td>Pathaan is a 2023 Indian Hindi-language action thriller film.</td></tr><tr><td>Salaam Namaste</td><td>Siddharth Anand</td><td>2005</td><td>Salaam Namaste is a 2005 Indian romantic comedy film</td></tr><tr><td>83</td><td>Kabir Khan</td><td>2021</td><td>83 is a 2021 Indian Hindi-language biographical sports drama film</td></tr><tr><td>Genius</td><td>Anil Sharma</td><td>2018</td><td>Genius is a 2018 Indian Hindi-language romantic psychological action thriller film</td></tr><tr><td>Tanhaji: The Unsung Warrior</td><td>Om Raut</td><td>2020</td><td>Tanhaji: The Unsung Warrior is a 2020 Indian Hindi-language historical action film.</td></tr></table>
5. On the home page, display the following HTML form in a file named moviefind.html:
<h1> Home Page </h1>
<form>
<label>Title</label>

<input type="text" name="title">

<label>Year</label>

<input type="text" name="year">

<label>Director</label>

<input type="text" name="director">

<button type='submit'> Submit </button>
</form>
This includes all like creating url for home page.
6. Make necessary adjustments to your code to let the user search for movie from this table by filling the HTML form. Filter your data on the basis for what the user filled in the HTML Form. Assume that the user will fill at least one field from the HTML form. And you can keep upto two fields in the form empty. Display the filtered movie data on your home page, below the form.</td><td></td><td>10</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>413</td><td>10</td><td>You are required to develop a Django web application focused on cricket that includes the following features:

1. Cricket Database:
•Create a Django project named ‘cricstats’ with a small database to manage information about cricket players.
•The database should include the following fields for each player:
•Player Name (CharField)
•Country (CharField)
•Batting Style (CharField)
•Bowling Style (CharField)
•Age (IntegerField)
•Runs Scored (IntegerField)
•Wickets Taken (IntegerField)</td><td></td><td>10</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		<table><tr><th>Player Name</th><th>Country</th><th>Batting Style</th><th>Bowling Style</th><th>Age</th><th>Runs Scored</th><th>Wickets Taken</th></tr><tr><td>Virat Kohli</td><td>India</td><td>Right-handed</td><td>Right-arm medium</td><td>33</td><td>12169</td><td>4</td></tr><tr><td>Joe Root</td><td>England</td><td>Right-handed</td><td>Right-arm off</td><td>31</td><td>10491</td><td>32</td></tr><tr><td>Kane Williamson</td><td>New Zealand</td><td>Right-handed</td><td>Right-arm off</td><td>31</td><td>7115</td><td>30</td></tr><tr><td>Steve Smith</td><td>Australia</td><td>Right-handed</td><td>Leg break</td><td>32</td><td>7540</td><td>17</td></tr><tr><td>Babar Azam</td><td>Pakistan</td><td>Right-handed</td><td>Right-arm off</td><td>26</td><td>3859</td><td>1</td></tr></table> •Utilize the Django admin panel to set up and manage this database. Your Django admin should enable you to add, edit, and delete player entries. •The username should clearly be your roll no with password as ljiet123, e.g. your Roll no is 200, the username should be 200 and password should be ljiet123. 2. Web Pages: •Design a web application with multiple pages. Your application should include at least three primary pages: •Homepage: This page should display a list of cricket players from the database. Each player's entry should display their name. •Player Detail Page: When a user clicks on a player's name on the homepage, they should be directed to a detailed page that showcases all information about the selected player, including their name, country, batting style, bowling style, age, runs scored, and wickets taken. •Add Player Page: Create a form page that allows users to add new cricket players to the database. The form should include fields for all player attributes. •Add 2 players through this Add Player page. •Implement navigation links or a menu bar for easy access to these pages.							
414	10	For a Django project, create an application which enables the user to signup and login to access the dashboard, with ability to logout of the account. The detailed steps to be followed are as below – 1. Create a Django project called authedemoproject. 2. Create an app ‘accounts’ for the project. 3. Create views for handling signup, login, logout and dashboard for the accounts app importing following libraries (from django.contrib.auth.forms import UserCreationForm from django.contrib.auth import login, logout, authenticate from django.shortcuts import render, redirect) 4. Create necessary accounts app templates to render the views. Below are the required output snaps of different urls of the project - • The user must signup and login to redirect to the dashboard page. #accounts/signup.html		10					

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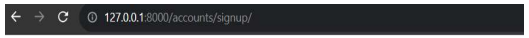
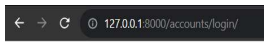
Note: The Practice Book is for reference only, LJU Test paper may not be compulsory set from this									
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		 **Signup** Username: Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only. Password: • Your password can't be too similar to your other personal information. • Your password must contain at least 8 characters. • Your password can't be a commonly used password. • Your password can't be entirely numeric. Password confirmation: Enter the same password as before, for verification. Signup  **Login** Username: Password: Login • The dashboard page must have a link to logout page. • The dashboard must dynamically render the username with welcome message as shown below - **User Dashboard** Welcome, chirag! Logout - Accessing the dashboard without logging in must render following template – **User Dashboard** You are not logged in. Login							

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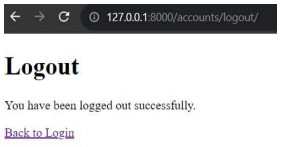
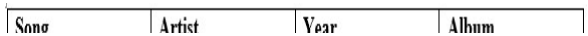
Note: The Practice Book is for reference only, LJU Test paper may not be compulsory set from this									
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		• The logout page must have a link to login page. # accounts/logout.html 5. Setup applevel and project level urls to handle signup, login, logout and dashboard.  							
415	10	Create signupaccount function in views.py file in accounts app in django project named movieproject for signup functionality. There is signupaccount.html file in templates folder of accounts app for signup. After signup it should redirect to home page. views.py from django.shortcuts import render # Create your views here.		3					
416	10	Create urls.py file in accounts app in Django project named movieproject. Different Path available for url file are signup, login and logout with functions available in views.py as signupaccount, loginaccount and logoutaccount respectively. urls.py from django.urls import path		3					
417	10	Create a Python Django Project with your firstname and lastname and follow the following steps: 1.Create an app called findmusic. 2.On the home page, display the following HTML form in a file name musicfind.html: <form> <h1> Welcome </h1> <h2> Let's search your Music </h2> <input id="song" class="input" type="text" placeholder=" "/> <label for="song"> Song </label> <input id="artist" type="text" placeholder=" "/> <label for="artist"> Artist </label> <input id="year" type="text" placeholder=" "/> <label for="year"> Year </label> <input id="album" type="text" placeholder=" "/> <label for="album"> Album </label> <button type="submit"> Submit </button> </form> 3.Create a model named Music with attributes song,artist,year and album where song,artist and album are text fields and year is a numeric field. 4.Migrate all the sqlite tables. 5.Create a superuser with your enrollment number last 4 digit as the username and password django123456 6.Log into the Django Admin Portal with this user and enter the following data in the Music Table  		9					

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Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		<table><tr><td>Calm Down</td><td>Selena Gomez</td><td>2022</td><td>Midnight Vibes</td></tr><tr><td>Ice Cream</td><td>Selena Gomez</td><td>2020</td><td>The album</td></tr><tr><td>People You Know</td><td>Selena Gomez</td><td>2020</td><td>Rare</td></tr><tr><td>Light Switch</td><td>Charlie Puth</td><td>2022</td><td>Charlie</td></tr><tr><td>We Don't talk Anymore</td><td>Charlie Puth</td><td>2016</td><td>Nine Track Mind</td></tr></table>							
418	10	Build a Django project using following guidelines. Write code for the following task: 1.Create a Django Project: Name of project is myproject 2.Create a Django App: Name of app is myapp 3. Define a Model: In myapp/models.py, define a simple model using name and description of project. 4. Create Migrations and Apply Them: 5. Create an Admin Interface: In myapp/admin.py, register your model to make it accessible in the Django admin interface: 6. Create Views and Templates: Create views in myapp/views.py and templates in myapp/templates/ to handle the display of your data. 7. Define URL Patterns: In myapp/urls.py, define URL patterns to map to your views. 8. Include App URLs in Project URLs: In myproject/urls.py, include the app's URL patterns. 9. Run the Development Server:		5					
419	10	Creating a Django project to display data of cricket players as shown in table. Use the Django admin panel to add cricket player data. No need to display data of cricket players in table format only. You can display data of cricket players in any layout. Name of project should be CricketPlayers Name of app should be players Username and password should be LJENG <table><tr><th>Player</th><th>Runs</th><th>Balls</th><th>4s</th><th>6s</th><th>SR</th><th>Team</th><th>Opposition</th></tr><tr><td>RG Sharma</td><td>264</td><td>173</td><td>33</td><td>9</td><td>152.60</td><td>India</td><td>v Sri Lanka</td></tr><tr><td>MJ Guptill</td><td>237*</td><td>163</td><td>24</td><td>11</td><td>145.39</td><td>New Zealand</td><td>v West Indies</td></tr><tr><td>V Sehwag</td><td>219</td><td>149</td><td>25</td><td>7</td><td>146.97</td><td>India</td><td>v West Indies</td></tr><tr><td>CH Gayle</td><td>215</td><td>147</td><td>10</td><td>16</td><td>146.25</td><td>West Indies</td><td>v Zimbabwe</td></tr><tr><td>Fakhar Zaman</td><td>210*</td><td>156</td><td>24</td><td>5</td><td>134.61</td><td>Pakistan</td><td>v Zimbabwe</td></tr><tr><td>RG Sharma</td><td>209</td><td>158</td><td>12</td><td>16</td><td>132.27</td><td>India</td><td>v Australia</td></tr><tr><td>RG Sharma</td><td>208*</td><td>153</td><td>13</td><td>12</td><td>135.94</td><td>India</td><td>v Sri Lanka</td></tr><tr><td>SR Tendulkar</td><td>200*</td><td>147</td><td>25</td><td>3</td><td>136.05</td><td>India</td><td>v South Africa</td></tr><tr><td>CK Coventry</td><td>194*</td><td>156</td><td>16</td><td>7</td><td>124.35</td><td>Zimbabwe</td><td>v Bangladesh</td></tr><tr><td>Saeed Anwar</td><td>194</td><td>146</td><td>22</td><td>5</td><td>132.87</td><td>Pakistan</td><td>v India</td></tr></table>		10					

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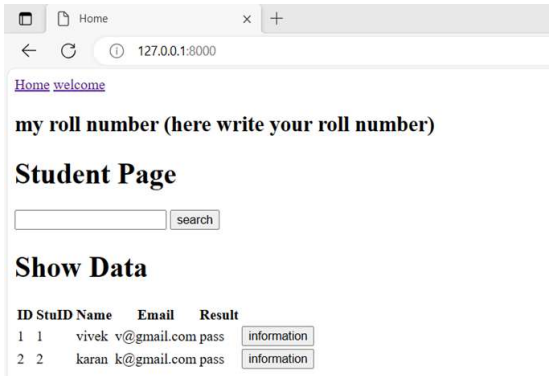
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
420	10	•Create python Django project with name 'musicproject' •Create an app called musicapp •On homepage it will display songs list entered from admin portal. •Create home.html file in musicapp. •Code for home.html <body> <h1>Music</h1> <h3>Enter Song </h3> <form action="" > <label for="song">Song:</label> <input type="text" name=" " > <button type="submit" >Search</button> </form> </body> •Create base.html file in musicproject. •Code for base.html <!DOCTYPE html> <html> <head> <title>Music</title> </head> </html> •Extends base.html file in to home html file. •Create model named Music with attributes song, artist, year. •Create super user with your enrollment number and password will be your roll number.(it is compulsory) •Log in to the django admin portal with this user and Enter the following data in Music table. •Make necessary adjustment to your code to let user search for song from this database by song title on home page. song artist year Ud jaa kale kawa Alka Yagnik, Udit Narayan 2023 Dilwale Dulhania Le Jayenge Lata Mangeshkar; S. P. Balasubraman1995 All Izz Well Sonu Nigam 2009 Radha kaise na jale Asha bhosle 2001 Dil To Pagal Hai Lata Mangeshkar 1997		9					
421	10	**Make a small website project using Django which has the following functionality.**  **EXPLAIN**		10	LJU 2023				

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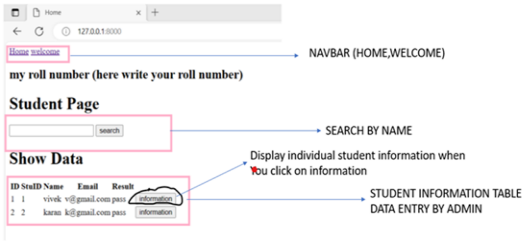
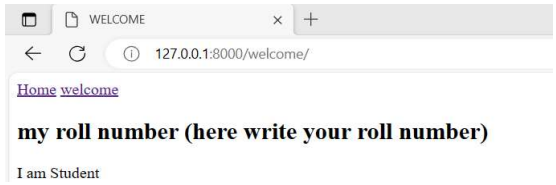
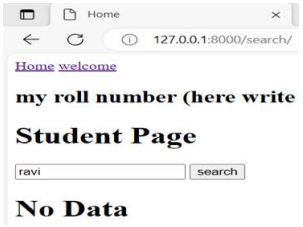
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		 **1). On the home page of the website, there should be a navbar with a home and welcome link** **2). If you click on the welcome, you'll be redirected to a page where you write I AM STUDENT**  **3). If you click on a Home, the page should redirect to a page where student data will be displayed. There will also be a (dynamic URL)link to information to redirect the page to the information page.** **-You need to create a project named project** **-You need to create an application called roll,** **-You need to create 4 function-based views:** **1. student_search: It should have the functionality to search for a particular name by passing a name in the search box. If the student's name was not on the list then NO DATA** 								

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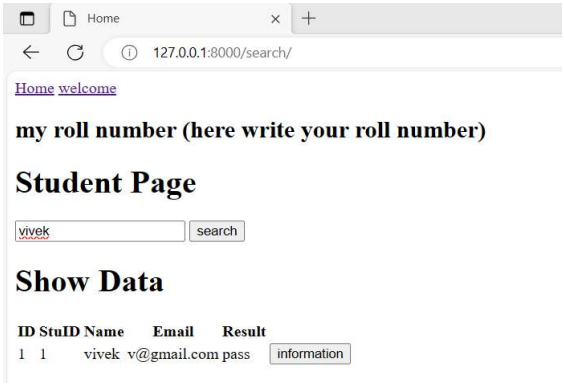
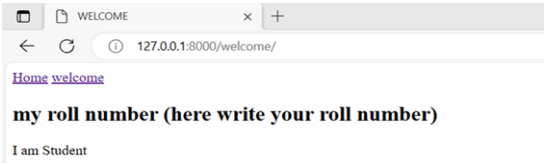
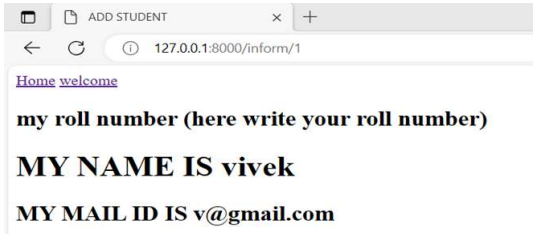
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
									
		2. Studentinfo: Display the student table on a home page. For data entry use Django administration.							
		3. welcome: Display the I AM STUDENT							
									
		4. stuinformation: Display individual student information							
									

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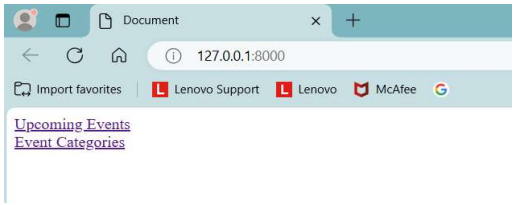
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		-Create superuser and keep your roll no. as username and enrollment no. as password. (This is compulsory, otherwise marks will not be given.) Template for search box and table(only for your reference): <form action="" method=" "> <input type="textbox" name="" /> <input type="submit" name= ""> </form> <table > <tr> <th> Heading1 </th> <th> Heading2 </th> <th> Heading3 </th> <th> Heading4 </th> <th> Heading5 </th> </tr> <tr> <td> content1 </td> <td> content2 </td> <td> content3 </td> <td> content4 </td> <td> content5 </td> </tr>							
		You are required to create a Django project named eventmanagement that includes two apps: events (for handling the events and their display) and categories (for listing the event categories). The project should meet the following specifications: 1.Home Page: oThe home page of the website should have 2 links named Upcoming Events and Event Categories.  2.Upcoming Events Page (events app): oWhen you click on the Upcoming Events link, it should redirect you to a page where a table of upcoming events is displayed. oThe table should include the following columns: Event Name, Event Date, Location, and Category (e.g., Conference, Workshop, etc.). oThe data for this table should be extracted from the database stored in the Django admin interface with name Events and should be ordered by date in ascending order. (Enter the data in the database as shown in sample output) oThere should be a search bar that allows the user to search for events by event name. oThere will also be a link at the bottom of the page labelled Event Categories that will redirect the user to the Event Categories page of categories app.							

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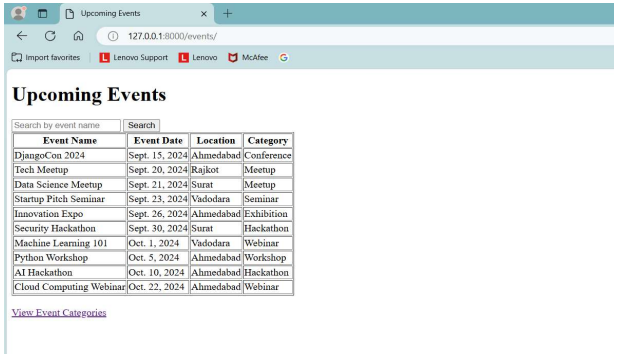
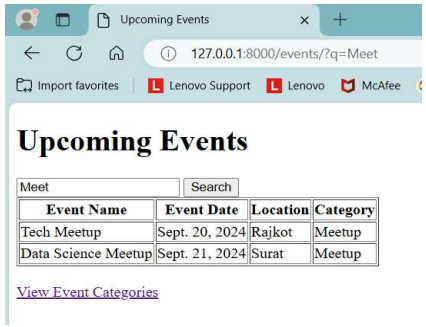
Sr. No.	**unit_number**	**question_text**	**answer_text**	**marks**	**previous_year**	**option1 (A)**	**option2 (B)**	**option3 (C)**	**option4 (D)**
422	10	  **HTML Snippet For above webpage (Add appropriate DTL in it):** **<html> <head> <title>Upcoming Events</title> </head> <body> <h1>Upcoming Events</h1> <form method="GET"> <input type="text" name="q" placeholder="Search by event name"> <button type="submit">Search</button> </form> <table border="1"> <thead> <tr> <th>Event Name</th> <th>Event Date</th> <th>Location</th> <th>Category</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <a href="#">View Event Categories</a> </body> </html>**						

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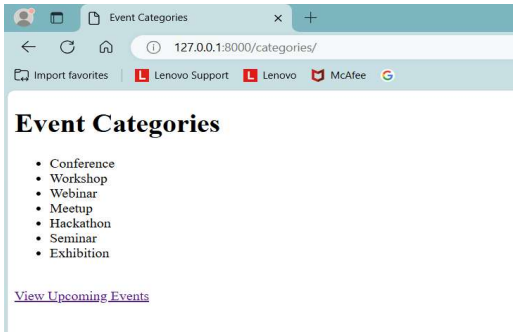
Sr. No.	unit_number	question_text	answer_text	marks	previous_year	option1 (A)	option2 (B)	option3 (C)	option4 (D)
		3.Event Categories Page (categories app): oWhen you click on the Event Categories link, it should redirect you to a page where a list of event categories is displayed. oThe categories should be extracted from the database stored in the Django admin interface with name Categories and displayed in order. oThere will also be a link at the bottom of the page labelled Upcoming Events that will redirect the user to the Upcoming Events page of events app.  HTML Snippet For above webpage (Add appropriate DTL in it): <html> <head> <title>Event Categories</title> </head> <body> <h1>Event Categories</h1> <ul> <li></li> </ul> <a href="#">View Upcoming Events</a> </body> </html> 4.Admin Functionality: •Create a superuser with your roll number as the username and your enrollment number as the password. This superuser should be able to add and manage events and categories within the Django admin interface. •Ensure that all data for both pages is extracted dynamically from the database and not hardcoded in HTML.							