

1.	SPPU EXAM a. Create your own wallet using Metamask for crypto transactions. Transfer money from one to other accounts b. Write a program nonrecursive and recursive program to calculate Fibonacci numbers and analyze their time and space complexity.	LP-III
2.	SPPU EXAM a. Write a smart contract on a test network, for the Bank account of a customer for the following operations: • Deposit money • Withdraw Money • Show balance b. Write a program to implement Huffman Encoding using a greedy strategy.	LP-III
3.	SPPU EXAM a. Write a program in solidity to create Student data. Use the following constructs: • Structures • Arrays • Fallback Deploy this as smart contract on Ethereum and Observe the transaction fee and Gas values b. Write a program to solve a fractional Knapsack problem using a greedy method	LP-III
4.	SPPU EXAM a. Write a smart contract on a test network, for Bank account of a customer for following operations: • Deposit money • Withdraw Money • Show balance b. Write a program to solve a 0-1 Knapsack problem using dynamic programming or branch and bound strategy.	LP-III
5.	SPPU EXAM a . Write a program in solidity to create Student data. Use the following constructs: • Structures • Arrays • Fallback Deploy this as smart contract on Ethereum and Observe the transaction fee and Gas values b. Design n-Queens matrix having first Queen placed. Use backtracking to place remaining Queens to generate the final n-queen's matrix.	LP-III

6.	SPPU EXAM	LP-III
	<p>a. Write a smart contract on a test network, for Bank account of a customer for the following operations:</p> <ul style="list-style-type: none"> • Deposit money • Withdraw Money • Show balance <p>b. Design n-Queens matrix having first Queen placed. Use backtracking to place the remaining Queens to generate the final n-queen's matrix.</p>	
7.	SPPU EXAM	LP-III
	<p>a. Create your own wallet using Metamask for crypto transactions. Transfer money from one to other account.</p> <p>b. Write a program non-recursive and recursive program to calculate Fibonacci numbers and analyse their time and space complexity.</p>	
8.	SPPU EXAM	LP-III
	<p>a. Write a program to display employee details (Id, Name, salary, joining date) using structure. Deploy this as smart contract on Ethereum and Observe the transaction fee and Gas values.</p> <p>b. Write a program non-recursive and recursive program to calculate Fibonacci numbers and analyze their time and space complexity.</p>	
9.	SPPU EXAM	LP-III
	<p>a. Write a program in solidity to create Student data. Use the following constructs: Structures • Arrays • Fallback Deploy this as a smart contract on Ethereum and Observe the transaction fee and Gas values</p> <p>b. Write a program to implement Huffman Encoding using a greedy strategy.</p>	
	ML+DAA	
10.	SPPU EXAM	LP-III
	<p>a. Predict the price of the Uber ride from a given pickup point to the agreed drop-off location. Perform following tasks: 1. Pre-process the dataset. 2. Identify outliers. 3. Check the correlation. 4. Implement linear regression and random forest regression models. 5. Evaluate the models and compare their respective scores like R2, RMSE, etc. Dataset link: https://www.kaggle.com/datasets/yassersh/uber-fares-dataset</p> <p>b. Write a program non-recursive and recursive program to calculate Fibonacci numbers and analyze their time and space complexity.</p>	

	SPPU EXAM	LP-III
11	<p>a. Given a bank customer, build a neural network-based classifier that can determine whether they will leave or not in the next 6 months.</p> <p>Dataset Description: The case study is from an open-source dataset from Kaggle. The dataset contains 10,000 sample points with 14 distinct features such as CustomerId, CreditScore, Geography, Gender, Age, Tenure, Balance, etc.</p> <p>Link to the Kaggle project: https://www.kaggle.com/barelydedicated/bank-customer-churn-modeling</p> <p>Perform following steps:</p> <ol style="list-style-type: none"> 1. Read the dataset. 2. Distinguish the feature and target set and divide the data set into training and test sets. 3. Normalize the train and test data. 4. Initialize and build the model. Identify the points of improvement and implement the same. 5. Print the accuracy score and confusion matrix (5 points). <p>b. Write a program to solve a fractional Knapsack problem using a greedy method.</p>	
12	SPPU EXAM <p>a. Implement Gradient Descent Algorithm to find the local minima of a function. For example, find the local minima of the function $y=(x+3)^2$ starting from the point $x=2$.</p> <p>b. Write a program to solve a 0-1 Knapsack problem using dynamic programming or branch and bound strategy.</p>	LP-III
13.	SPPU EXAM <p>a. Implement K-Nearest Neighbors algorithm on diabetes.csv dataset. Compute confusion matrix, accuracy, error rate, precision and recall on the given dataset. Dataset link : https://www.kaggle.com/abdallamahgoub/diabetes</p> <p>b. Design n-Queens matrix having first Queen placed. Use backtracking to place remaining Queens to generate the final n-queen's matrix.</p>	LP-III
	ML+BCT	
14	SPPU EXAM <p>a. Implement K-Means clustering/ hierarchical clustering on sales_data_sample.csv dataset. Determine the number of clusters using the elbow method. Dataset link : https://www.kaggle.com/datasets/kyanyoga/sample-sales-data</p> <p>b. Installation of MetaMask and study spending Ether per transaction. Create your own wallet using Metamask for crypto transactions.</p>	LP-III

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15	<p>a. Predict the price of the Uber ride from a given pickup point to the agreed drop-off location.</p> <p>Perform following tasks:</p> <ol style="list-style-type: none"> 1. Pre-process the dataset. 2. Identify outliers. 3. Check the correlation. 4. Implement linear regression and random forest regression models. 5. Evaluate the models and compare their respective scores like R2, RMSE, etc. <p>Dataset link: https://www.kaggle.com/datasets/yassserh/uber-fares-dataset</p> <p>b. Write a smart contract on a test network, for Bank account of a customer for following operations:</p> <ul style="list-style-type: none"> • Deposit money • Withdraw Money • Show balance 	
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