Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

AY: 2024-25

Class:	TE	**Semester:**	V
Course Code:		**Course Name:**	AI

Name of Student:	Sainath Khot
Roll No. :	20
Assignment No.:	6
Title of Assignment:	
Date of Submission:	
Date of Correction:	

Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Completeness	5	
Demonstrated Knowledge	3	
Legibility	2	
Total	10	

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Completeness	5	3-4	1-2
Demonstrated Knowledge Legibility	3	2	1
Legibility	2	1	0

Checked by

Name of Faculty :

Signature :

Date :

AI - 6

Q) Identify component in Partial ordering for wearing shoes & socks

→ In context of partial ordering for wearing shoes and socks, the element are:

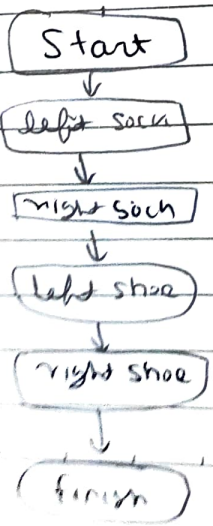
Socks : These must be worn before shoes

SHOES : These can only be worn after socks

- Partial ordering components
- Elements - Socks (left & right)
  shoes (left & right)

Relation (Partial order)
- left sock < left shoe
- Right sock < right shoe

No specific order
- There is no specific relation bt^ left sock & right sock left shoe & right shoe.
- Thus you can wear sock in any order & similarly for shoe as long as socks are worn before shoes



Q2 You work for certain company with customer data that includes age, gender, purchase history, total amount spent, & behaviour.

1) Customer segmentation 2) Purchase Prediction

Identify learning in AI

=) Customer Segmentation.

- This is an unsupervised learning.
- We use clustering algorithms like K-means or Hierarchical clustering
- Eg Customers can be grouped into categories like frequent buyers or casual shoppers allowing for targeted marketing strategies.

Purchase Prediction

- This is a ~~supervised~~ supervised learning
- Since we have a labelled dataset which is used to predict future purchases.
- Classification is done using Logistic Regression
- Eg AI predicts if a customer will buy a product next month based on their purchase history & behaviour.