**True or False : Incorporating irrelevant features in a machine learning model can improve its predictive performance**

* False
* True

Ans: False

**True or False: Feature selection in machine learning helps in reducing the dimensionality of the dataset.**

* False
* True

Ans: True

***Scenario Question***

***You are tasked with developing a spam email filter using machine learning. The dataset you have contains email samples labeled as "spam" or "not spam." Which features would you consider important for this classification task?***

***A. Sender's Email Address B. Word Frequency in the Email C. Font Style and Size D. Number of Links in the Email E. Email Attachment Size***

***Select the correct options:***

1. A, D, E
2. A, C, E
3. B, D, E
4. B, D, A

Ans: 3

***Scenario Question***

**You are working on a machine learning project to predict customer churn for a subscription-based service. The dataset you have includes customer information such as age, usage patterns, subscription type, and a unique customer ID for each record.**

**Why would using the customer ID as a feature for predicting churn be ineffective?**

1. Using the customer ID as a feature may raise privacy concerns and ethical considerations, as it directly identifies individuals.
2. The customer ID is not related to the underlying reasons for churn and including it may introduce noise into the predictive model.
3. The customer ID is a unique identifier and does not contain predictive information regarding the likelihood of churn.

Ans:3