**Week-3**

1. Consider a dataset with the following information:

|  |  |  |
| --- | --- | --- |
| **Weather** | Temperature | Play Tennis |
| Sunny | Hot | No |
| Overcast | Mild | Yes |
| Rainy | Cool | Yes |
| Sunny | Mild | Yes |
| Rainy | Hot | No |
| Overcast | Cool | Yes |
| Sunny | Hot | No |

Given a new instance with weather as "Overcast" and temperature as "Mild," predict whether tennis will be played or not?

1. Given the following dataset, check whether the combination of cars like (Red,SUV,Domestic) and (Yellow,Sports,Imported) are stolen or not?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number | Color | Type | Origin | Stolen |
| 1 | Red | Sports | Domestic | Yes |
| 2 | Red | Sports | Domestic | No |
| 3 | Red | Sports | Domestic | Yes |
| 4 | Yellow | Sports | Domestic | No |
| 5 | Yellow | Sports | Domestic | Yes |
| 6 | Yellow | SUV | Imported | No |
| 7 | Yellow | SUV | Imported | Yes |
| 8 | Yellow | SUV | Domestic | No |
| 9 | Red | SUV | Imported | No |
| 10 | Red | Sports | Imported | Yes |

1. Given the following dataset, what would be the value of Y for A=0 ,B=0, C=1?

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | Y |
| 0 | **0** | **1** | **0** |
| 0 | **1** | **0** | **0** |
| 1 | **1** | **0** | **0** |
| 0 | **0** | **1** | **1** |
| 1 | **1** | **1** | **1** |
| 1 | **0** | **0** | **1** |
| 1 | **1** | **0** | **1** |