1. For the below dataset, construct a decision tree for classifying a new test record using information gain measure.
   Also, classify the below test records using the constructed decision tree:
     a. Outlook = Rainy, Temp = Cool, Humidity = High, Windy = True
     b. Outlook = Sunny, Temp = Mild, Humidity = Normal, Windy = False

Outlook	Temp	Humidity	Windy	Play Golf
Rainy	Hot	High	False	No
Rainy	Hot	High	True	No
Overcast	Hot	High	False	Yes
Sunny	Mild	High	False	Yes
Sunny	Cool	Normal	False	Yes
Sunny	Cool	Normal	True	No
Overcast	Cool	Normal	True	Yes
Rainy	Mild	High	False	No
Rainy	Cool	Normal	False	Yes
Sunny	Mild	Normal	False	Yes
Rainy	Mild	Normal	True	Yes
Overcast	Mild	High	True	Yes
Overcast	Hot	Normal	False	Yes
Sunny	Mild	High	True	No

2. For the below dataset, construct a decision tree for classifying a new test record using information gain measure.
Also, classify the below test records using the constructed decision tree:
   a. Industry = Urban, JobType = Sales, Income = Low, Previous Customer = Yes
   b. Industry = Electronics, JobType = Engineering, Income = High, Previous Customer = No

Industry	Job Type	Income	Previous Customer	Class
Aerospace	Engineering	High	No	NO

Aerospace	Engineering	High	Yes	NO
Auto	Engineering	High	No	YES
Electronics	Marketing	High	No	YES
Urban	Marketing	Low	No	YES
Urban	Marketing	Low	Yes	NO
Auto	Marketing	Low	Yes	YES
Aerospace	Sales	High	No	NO
Aerospace	Marketing	Low	No	YES
Electronics	Sales	Low	No	NO
Aerospace	Sales	Low	Yes	YES
Electronics	Sales	High	Yes	NO
Auto	Engineering	Low	No	YES
Electronics	Sales	High	Yes	NO