Fall 2022
Systems Analysis and Design
Cyber Security & Intelligent Systems Programs
Dr. Mohamed Mustafa



## Sheet 3

## **Process Logic**

A company follows the following sales promotion policy:

- 1) Preferred customers who order more than 1000 USD are entitled to a 5% discount, and an additional 5% discount if they used our charge card.
- 2) Preferred customers who do not order more than
- 3) 1000 USD receive a \$25 bonus coupon.
- 4) All other customers receive a \$5 bonus coupon.

Represent the previous process using structured English, decision tree, decision table.

Construct decision table for the following company's travel expenses policy:

- If speed is not critical, employees grade 3 and below should take a bus for both local and intercity travel.
- Whereas if speed is critical all employees should take the company car for local travel and domestic airlines (economic class) for intercity travel.
- Employees who are grade 4 and above, should use domestic airlines (economy class) for intercity travel even if speed is not critical, and they should use a taxi locally.

Represent the following using structured English, decision tree, decision table. Suppose a parcel's weight is W kilograms. The rules of deciding the postage of a postal parcel is described as follow:

- If the parcel is to be sent by express, then the basic charge will be 6\$/kg, otherwise the basic charge will be 4\$/kg.
- If the distance is over 200km, then each kg will be charged for one more dollar.
- If the parcel's weight is over 10kg, then another 0.5 dollar will be charged for each kg that exceeds 10 kg.

Represent the following using structured English, decision tree, decision table. Suppose a parcel's (طرد) weight is W kilograms. The rules of deciding the postage (طرد بریدی) of a postal parcel (طرد بریدی) is described as follow:

- If the parcel is to be sent by express, then the basic charge will be 6\$/kg, otherwise the basic charge will be 4\$/kg.
- If the distance is over 200km, then each kg will be charged for one more dollar.
- If the parcel's weight is over 10kg, then another 0.5 dollar will be charged for each kg that exceeds 10 kg.