Name: Kok Yao Zhang

Matriks : A176818

TTTR 3153 PEMODELAN DAN SIMULASI SISTEM

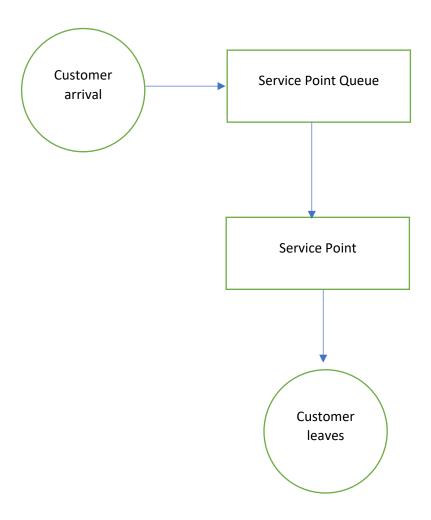
Date: 14/11/2021

Assignment 2 (Conceptual Model)

### Case study

A fast-food restaurant is experiencing problems with one of its branches in its network. Customers regularly complain about the length of time they have to queue at the service counters. It is apparent that this is not the result of shortages in food, but a shortage of service personnel.

# 1.Layout of restaurant model



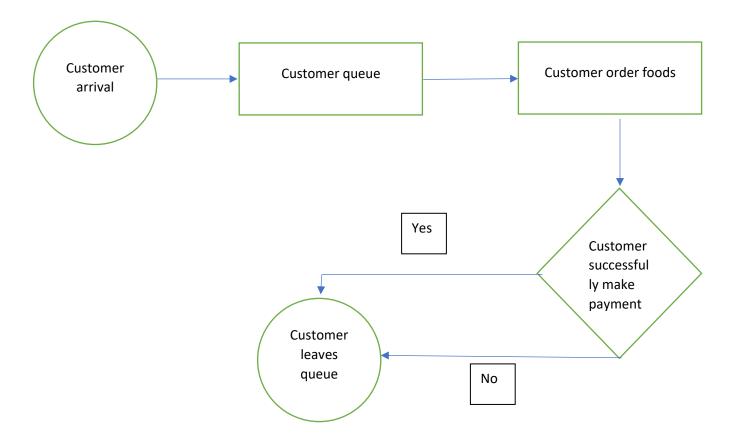
#### 2. Model Elements Needed

Model Element	Detail
Customers	Inter-arrival Rate
Service Point Queue	Capacity, FIFO
Service Point	Service Time, Staff Rosters amount

# 3. Objective of simulation study

Shorten the length of time customers have to queue at the service counters.

### 4. Layout of restaurant model



- 5. Inputs and Outputs
- a. Inputs
- i. Staff Roster (Number of staff working together at a period of time).
- b. Outputs
- i. Percentage of customers having fast queue time(less than five minutes).
- ii. average waiting time of customer during peak hours and normal hours.
- iii. average orders handle by each staff.