



CZ4015 Simulation & Modelling

Assignment 1 Part 1

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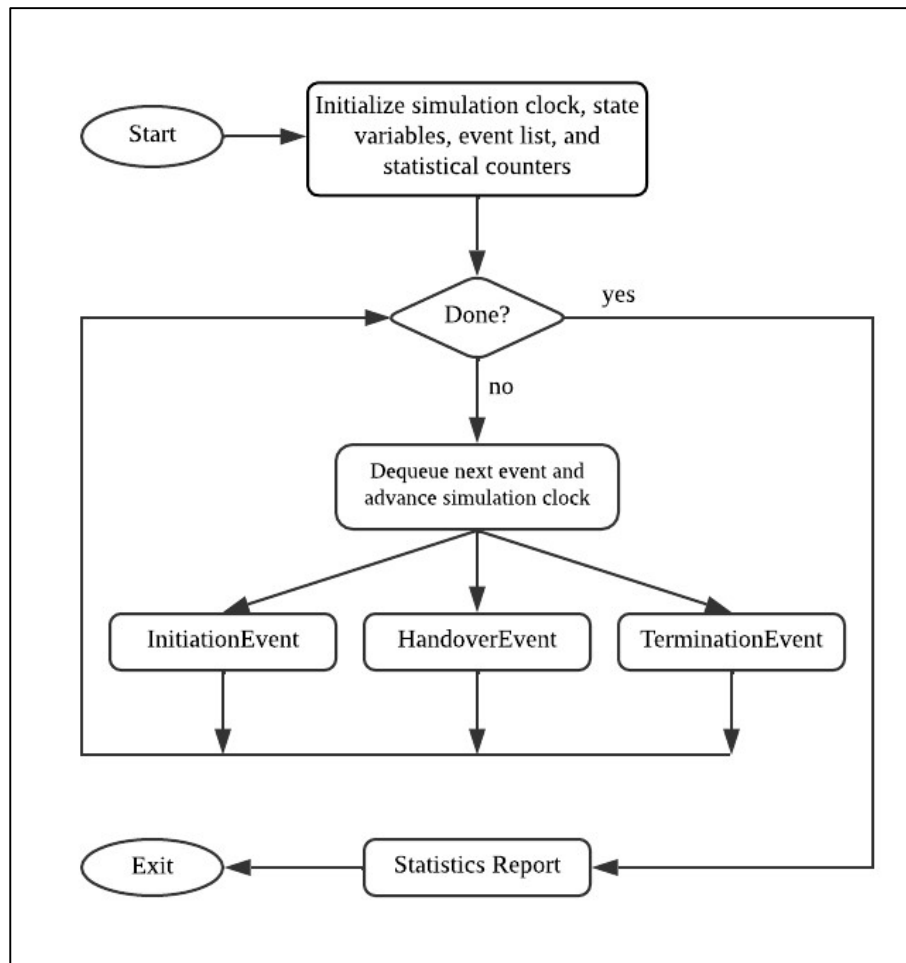
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# **1. Pseudocode and Flowcharts**

## FCA Channel Allocation Schemes

1. FCA1: No channel reservation
2. FCA2: 9 channels are allocated to each cell for new calls and handovers and 1 channel is reserved for handovers when the other 9 channels are not available

### **1.1. Main Function**



## 1.2. Initialization

1. Set clock to 0
2. Set initial state:
  - a. Initiation channels = 10 if FCA1, 9 if FCA2
  - b. Handover channels = 10
  - c. For each base station:  
Channels used = 0
  - d. FEL = empty
3. Initiate event list
  - a. Generate random inter-call initiation time,  $I_I$
  - b. 1<sup>st</sup> call initiation time  $t_I = 0 + I_I$
  - c. Generate and store initial base station for this call
  - d. Create the 1<sup>st</sup> arrival event at  $t_I$  and insert into FEL
4. Set stat counters to 0
  - a. Total number of calls = 0
  - b. Number of dropped calls = 0
  - c. Number of blocked calls = 0

### 1.3. Event Handling Functions

