

IE-3081-Homework#4

Student information

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Objectives

We have selected the modern shared office system for our simulation project. The main purpose of this system is to control the entrances and exits through the ticket machine, reducing the waiting time of people and providing maximum efficiency in time.

System Component

System: Office Building

Entities: People (who want to study in this area), Officer

Attributes: Study rooms, ticket machine

Activities: Study, work or meeting

Events: Getting ticket from ticket machine, studying in the room, paying the officer when leaving, leaving at building

State Variables: Number of study rooms, number of people who want to use the room at the queue, number of people looking for an empty room, number of occupied and empty rooms.

Performance Metrics

Performance metrics are the average wait time to find an empty study room, the average time worked indoors, and the waiting time people spend leaving the office.

Alternative System Design

We can add an online reservation system to reduce the waiting time to find a empty room, and minimize the waiting time at checkout by adding online payment methods.

CONCEPTUAL MODEL

