**The Open University of Sri Lanka**

**Department of Electrical and Computer Engineering**

**Bachelor of Software Engineering Honors**

**Level 5**

**EEX5362 - Performance Modelling**

**Academic Year - 2024/2025**

**Mini Project**

**A railway ticket reservation and scheduling system**

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**Introduction**

In Sri Lanka Railaway ticket reservation system design to local and foreign passengers to make search, book, and manage railway tickets through this online platform. This platform updated and maintain recently because this platform wants to meet more reliable and accurate performance.

Sri Lankan train ride is most beautiful train ride in the world and to experience this ride passengers are trying purchase tickets more convenient way. Increasing demand specially peak time periods like long weeekeneds, the system face performance challenges. Response delay, slow responce and searches are some challenges of this peak time.

In this mini project I am focused to measure response time (that means time taken for the system to respond to a user request), throughput (number of successful transactions (bookings/searches) per time), and recourse utilisation (how well resources handle different loads).

Analyse the performances in different times of the day during the one month and identify high response time and observe most suitable methods to increase performance.

**Objectives**

The main objectives that I have trying to obtain,

* **Minimize response time -** Minimise time taken for the system to respond to a user request
* **Increase throughput -** Ensure more users can access the system simultaneously.
* **Recourse Utilisation -** Handle traffic efficiently during peak hours.

**Model Techniques proposed to use**