**Motivation and Goal**

- **Problem** – Operating room rescheduling is often performed manually by nurses with limited time.
- **Goal** – To build a rescheduling software prototype that adjusts operating room schedules systematically and efficiently.

**Operating Room Rescheduling Algorithm**

- **Goal** – Minimize time required to execute remaining surgeries.
- **Constraint** – Avoid delaying surgeries (extent specified by user input).

**Adapting the LPT Algorithm**

- Initialize loads of operating rooms with currently occurring surgeries.
- Sort remaining surgeries in descending order of weight.
- Assign each surgery to room that currently has smallest load.

**Evaluation**

- **Alpha** – Parameter that determines the importance of avoiding surgery delays when assigning weights to surgeries (user input).
- **Baseline algorithm** - Basic rescheduling algorithm for evaluation.

**System Design**

- **Input initial schedule**
- **Monitor schedule**
- **Input unexpected event**
- **Accept/reject schedule suggestions**
- **Run rescheduling algorithm**

**Application Features and Interface**

- **Login system**
- **Input initial schedule**
- **Indicate surgery going overtime**
- **Indicate surgery finishing early**
- **Generate suggested schedule adjustments**
- **Accept/reject new schedule**

**Future Extensions**

- Notification system for hospital staff.
- Long term: Integrate with hospital systems.