Patient Flow and Staff Scheduling for Medical-Surgical Unit

- **Motivation**
  - Increasing pressure on hospitals to deliver cost-efficient care
  - Need an automated, accurate way of predicting patient census to schedule staff

- **Methods**
  - SimPy is used to simulate patient census for a period of time that is given by user input
  - Census is updated hourly using historical data

- **Results**
  - Simulated census fits seasonal and hourly temporal trends
  - Code is fully documented so further improvements to simulation can be performed

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