PBL-1 Problem Domain Analysis

977-271 Requirement Engineering and System Modelling

977-371 Software Requirement Specification and Management

Problem Scenario:

Peter&Son Building Construction Co. is a building construction company located in London, United Kingdom. They have been hired by Jim Thomas to build a residential apartment building. This apartment building has been designed as a lipstick shaped structure which is 101-metre (331 ft) tall with 26 floors, located in Portsmouth, United Kingdom. The architects have designed the structure of the building that looks like the shape as shown in Figure 1. At this moment, they are considering to the design of the lift including its control system. Jim Thomas only needs one lift to be used in this building with a very effective and powerful control system. This means that the control system must have the lift scheduling that prioritises the floor service effectively in order to serve the request from each floor with the least amount of waiting time. Peter&Son is hiring OTIS, a lift manufacturer, to implement and install the lift system including the development of control system.

Figure 1 a lipstick building

Problem Statements:

Imagine that you are one member of the software development team of OTIS who are responsible to design and develop the lift control system for this lipstick building:

(1) What are the problem domains of this system?

(2) What are the scheduling strategies which you will design in order to schedule and prioritise each lift request with the least amount of the waiting time?