

# Software Engineering Project 2

## Problem 1:

When describing a system, explain why you may have to start the design of the system architecture before the requirements specification is complete.

## Solution 1:

Architectural design focuses on determining the optimal organization of a software system. It plays a vital role in bridging the gap between requirements engineering and detailed design. The result of this process is an architectural model, which outlines the system's structure in terms of its interacting components.

## Problem 2:

When describing a system, explain why you may have to start the design of the system architecture before the requirements specification is complete.

Draw diagrams showing a conceptual view and a process view of The architectures of the following systems: A ticket machine used by passengers at a railway station.

## Solution 2:

Figure 1 and Figure 2

## Problem 3:

Using the generic model of a language processing system presented here, design the architecture of a system that accepts natural language commands and translates these into database queries in a language such as SQL.

## Solution 3:

Figure 3

Conceptual View

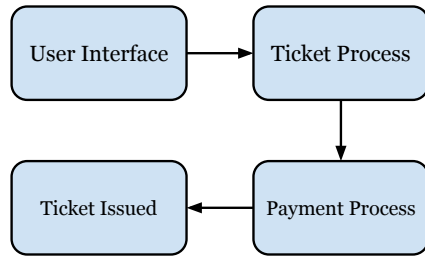


Figure 1: fig:1

Process View

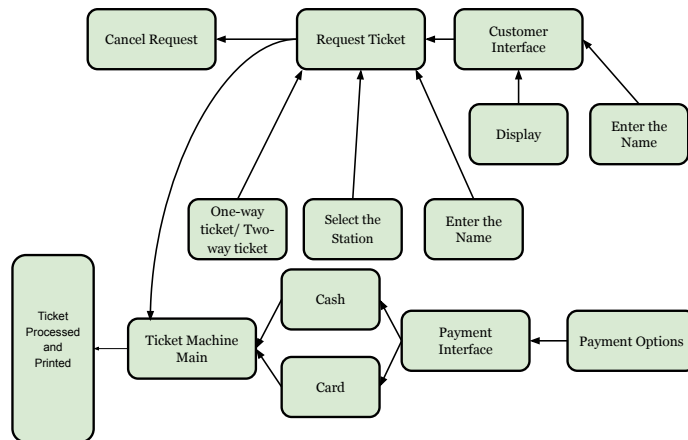


Figure 2: fig:2

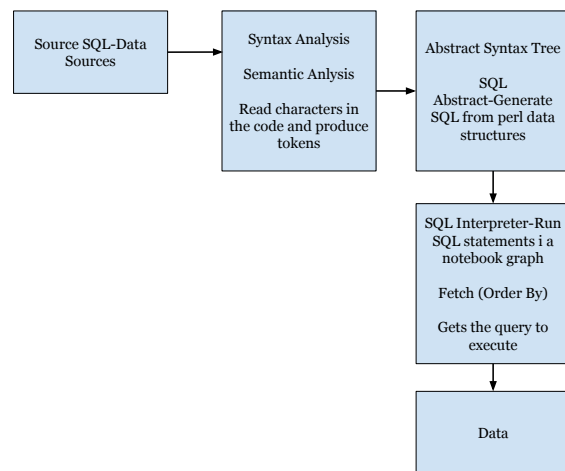


Figure 3: fig:3