



VIT[®]

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

CSE 3001

Software Engineering

LAB ASSESSMENT - 2

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An aerial photograph of a parking lot. Several cars are visible: a red car on the left, a blue car on the right, a dark blue car at the bottom, and a yellow car on the far right. A white number '2' is painted on the asphalt in the center. White parking lines are visible throughout the scene.

PROJECT TOPIC:

Smart Parking System

(19BCE0215)

1. Identify the Functional and Non-functional Requirement

Functional requirement

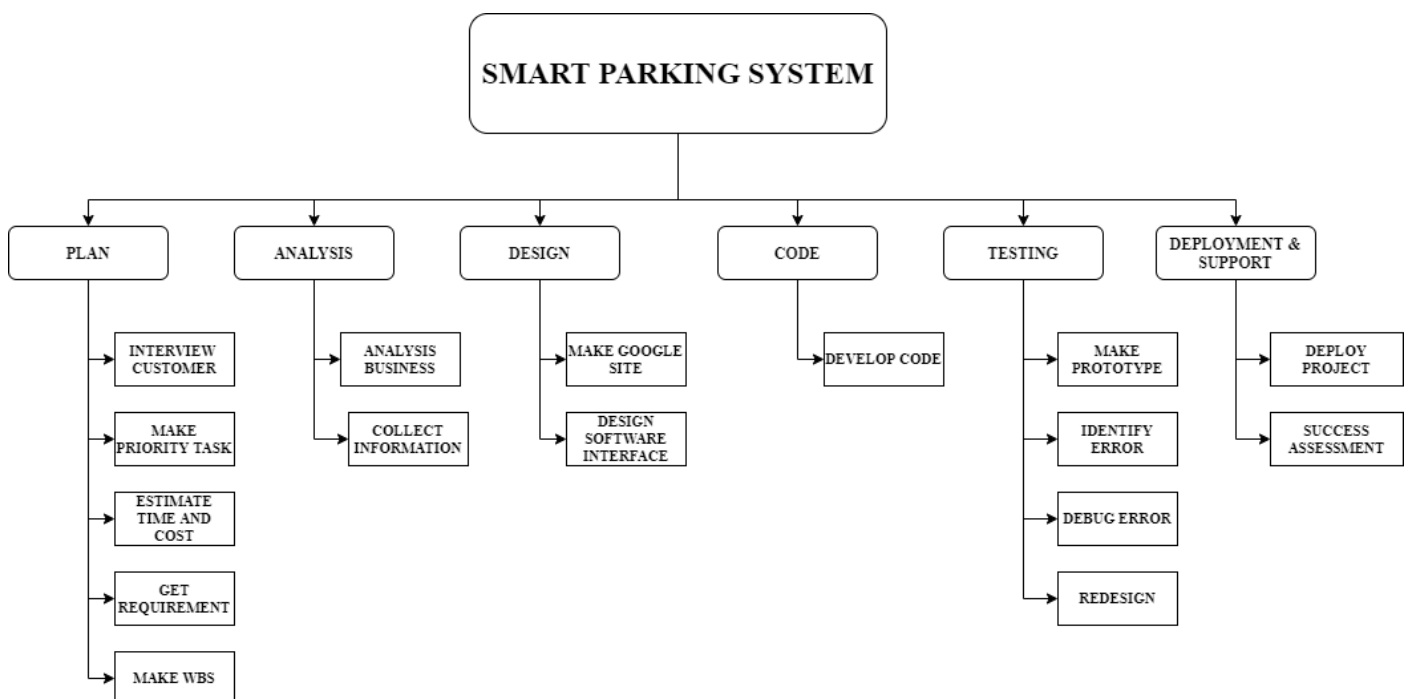
- ✓ It can show an available space for parking a car.
- ✓ It can synchronize with sensor for preventing robbery purpose.
- ✓ It can memorize location of user's car.
- ✓ It can calculate parking fee.

Non-functional requirement

- ✓ Registration is required for keeping data.
- ✓ It must display the parking lot map in real-time (if possible)
- ✓ The time must be based on GMT.

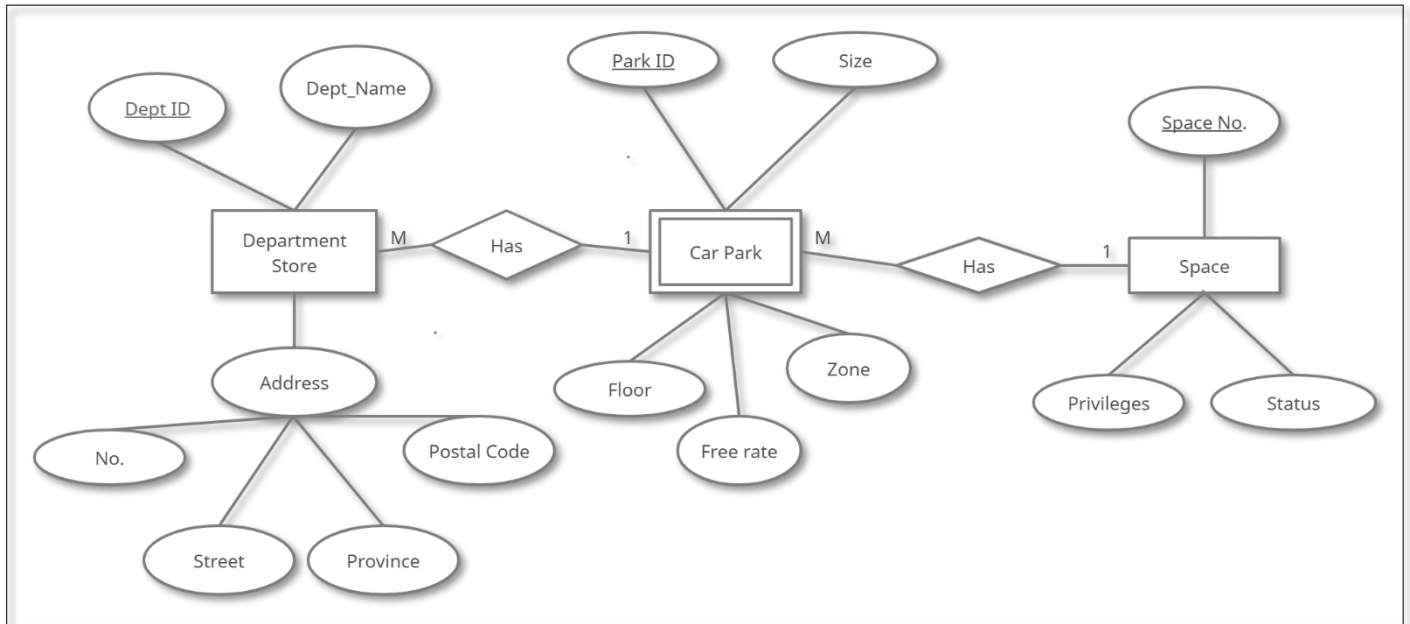
2. Draw the WBS

Work Breakdown Structure:



3. Draw the ER or DFD

ER Diagram:



ENTITIES:

- Department Store
 - Dept ID (Primary key)
 - Dept_Name
 - Address
 - No.
 - Street
 - Province
 - Postal Code
- Car Park (Weak Entity)
 - Park ID (Primary key)
 - Size
 - Floor
 - Free Rate
 - Zone
- Space
 - Space No. (Primary key)
 - Privileges
 - Status

RELATIONS:

- Department Store has Car Park (Many to One).
- Car Park has Space (Many to One).