
VIT®

Vellore Institute of Technology

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

CSE 3001

# Software Engineering

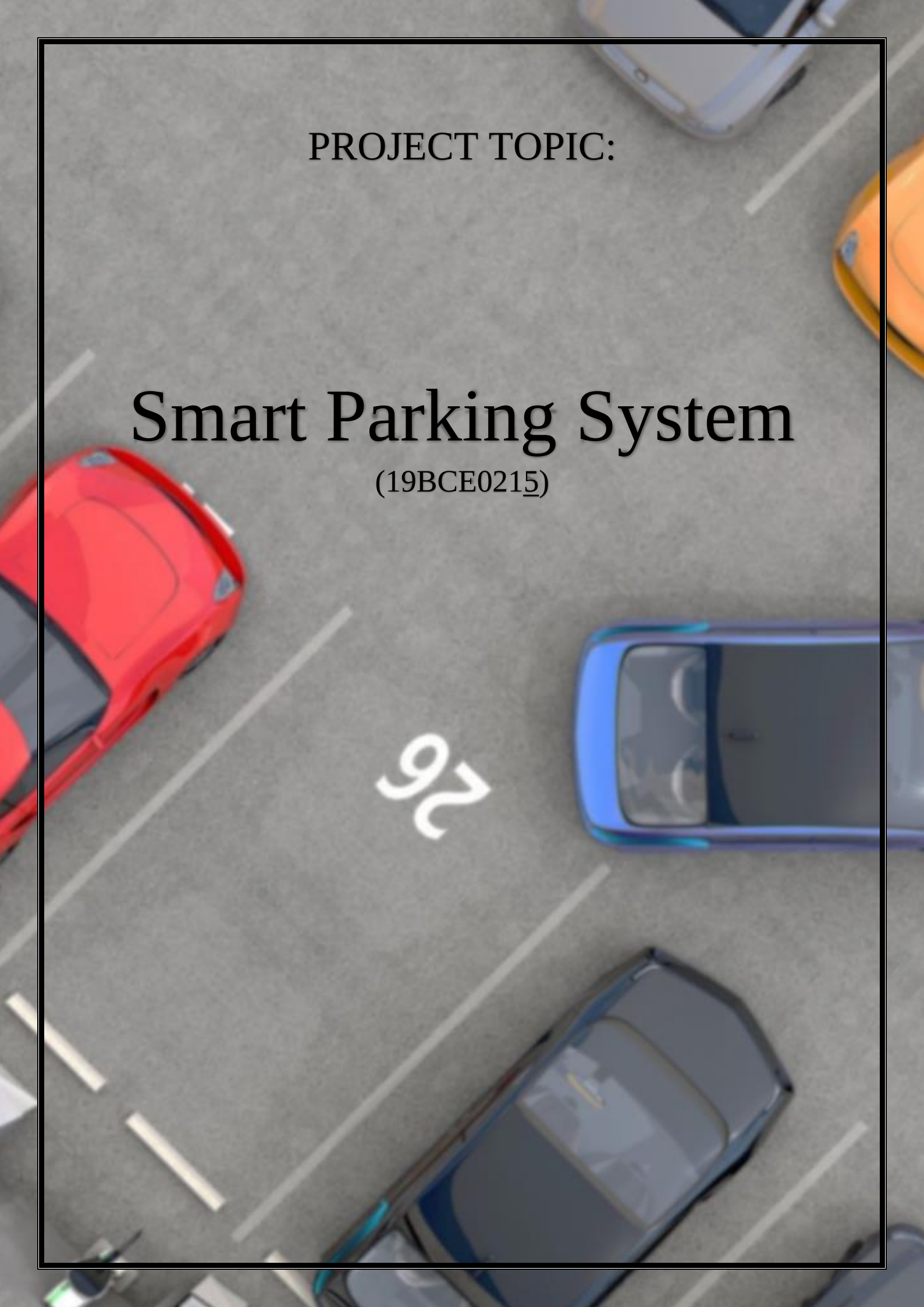
## LAB ASSESSMENT - 2

**NAME**: Vibhu Kumar Singh
**REG. NO**: 19BCE0215
**TEACHER**: Ushus Elizebeth Zachariah

PROJECT TOPIC:

# Smart Parking System

(19BCE0215)



# 1. Identify the Functional and Non-functional Requirement

Functional requirement

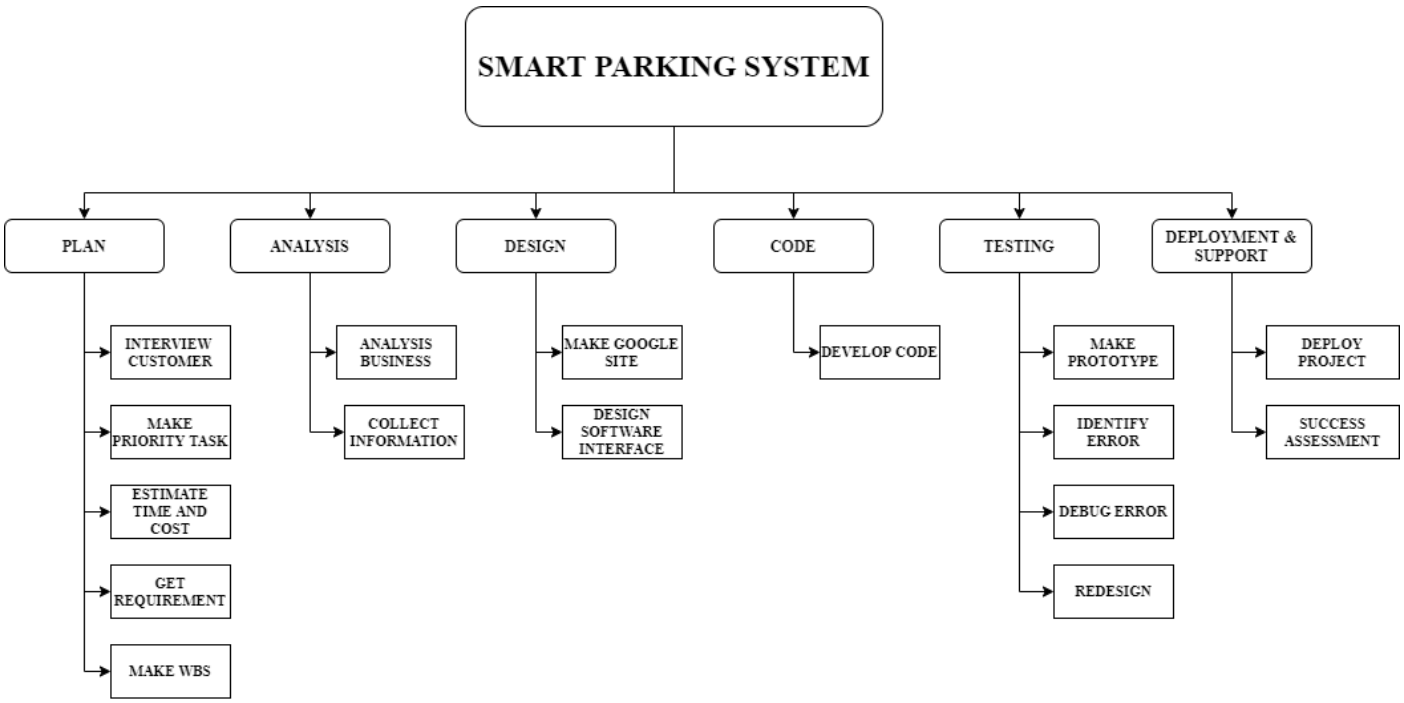
- ✓ It can show an available space for parking a car.
- ✓ It can synchronize with sensor for preventing robbery purpose.
- ✓ It can memorize location of user's car.
- ✓ It can calculate parking fee.

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.

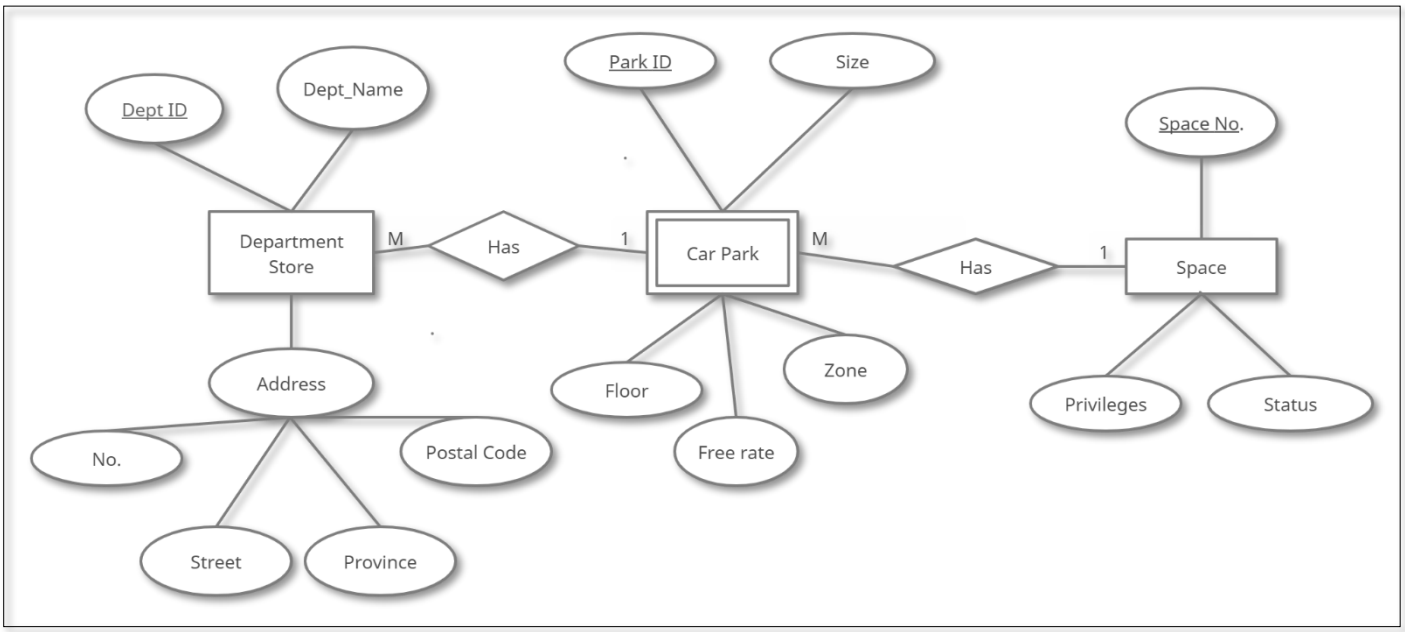
# 2. Draw the WBS

## 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).