**HW Assignment 2 (20 points)**

**Your Name:**

**Your ZID:**

**Answer the following questions and submit in pdf or word document on blackboard.**

For the context below, draw an ER Diagram. You may make assumptions as necessary, but state any assumptions that you make.

1. HomeCarRepair is an organization that offers a unique service. Using HomeCarRepair, customers can book an appointment for a car mechanic to come to their home and repair their vehicle. The company has locations in all major cities of the US. Each location has supervisory staff, who oversee one or more full time mechanics. Each location has a location manager to whom all supervisory staff report to.

The company hires full time mechanics on their payroll, and each mechanic is assigned a supervisor. Not all mechanics can repair/diagnose all cars. Each mechanic has a set of vehicle makes and models he/she is familiar with. Mechanics are assigned to only those car types which correspond to their expertise area.

The customer makes an appointment by specifying the type of repair that is required, or if it is unknown, the customer writes a note about what is wrong with the car. Each repair has a specific price associated with it. An available mechanic who can work on the customer’s car is then assigned to do the repair/diagnosis visit.

Diagram

Description automatically generated

1. Cutting Edge Incorporated is a company engaged in the development of computer-aided design (CAD) software packages. The management of Cutting Edge wants to develop a project tracking system to accumulate and report data on current projects, employees and departments. They have given you the following attributes they store on an excel spreadsheet. A project can have several employees assigned to it. An employee belongs to only one department. Make any necessary assumptions and normalize to 3NF.

(ProjectNumber, ProjectName, StartDate, ProjectStatus, (EmployeeNumber, EmployeeName, DepartmentNumber, DepartmentName, JobTitle, ProjectHours))

Text, letter

Description automatically generated