Computer Science Department

University of Computer & Emerging Sciences (FAST-NU)

HOME WORK ASSIGNMENT COVER SHEET

COURSE TITLE: DATABASE SYSTEMS

COURSE CODE: CS2009

INSTRUCTOR: Teaching Team.

TYPE: Individual/ **Group**

ASSIGNMENT NO: HW-2 (Class)

ASSIGNMENT: Enhanced Entity Relationship Diagram- Case study

HAND OUT DATE **21-Oct-2021** DUE DATE **29-OCT-2021 (11:50PM)**

ASSESSMENT CRITERIA (or attached)	% Mark
This HW includes the following tasks Scenario Submission: Only soft copy in pdf is required. **Group of max 2 students is allowed, individual work is acceptable in extreme situations and with prior written (by email) permission of theory course teacher. Such permission should be sought at least 5 days before the deadline of the assignment.** **Any type of plagiarism will lead to 0% marks of both/all parties.** **Cross Section Groups are not allowed. Late submission will result in zero marks.**	

TO BE COMPLETED BY STUDENT (TEAM LEAD) GROUP MEMBERS ID

NAME Abdullah Faisal

ID NO 19I-1911 Section# C

Time Taken: 2 days

DECLARATION: I/We declare that this Coursework is my/our group's own work

SIGNATURES (All members)

Abdullah Faisal / Jiyad Khan

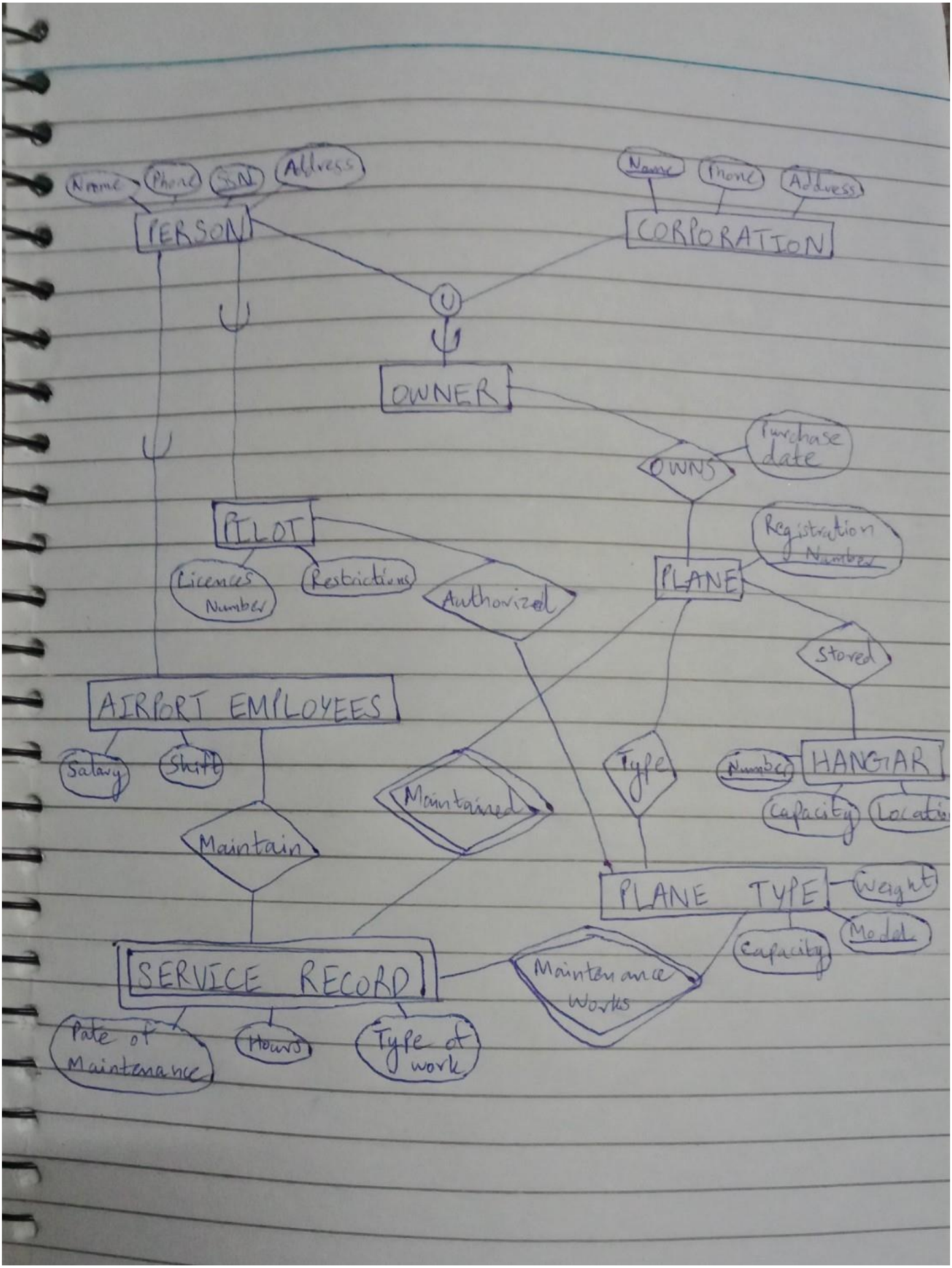
Group Members ID	
ID 19I-1911	Sec# C
ID 19I-1771	Sec# C

GRADE/ MARK AWARDED COMMENTS

INSTRUCTOR'S SIGNATURE DATE

Airport Database System [50 Points]

Create an EER diagram for a small private airport database that is used to keep track of airplanes, their owners, airport employees, and pilots. From the requirements for this database, the following information was collected: Each airplane has a registration number that is of a particular plane type and is stored in a particular hangar. Each plane type has a model number, a capacity, and a weight. Each hangar has a number, a capacity, and a location. The database also keeps track of the owners of each plane and the employees who have maintained the plan. Each relationship instance owns relates an airplane to an owner and includes the purchase date. Each relationship instance maintain relates to an employee to a service record. Each plane undergoes service many times; hence, it is related by several service records. A service record includes attributes the date of maintenance, the number of hours spent on the work, and the type of work done. An owner is either a person or a corporation. Each pilot has specific attributes license number and restrictions; each employee has specific attributes salary and shift, etc. All person entities in the database have data kept on their social security number, name, address, and telephone number. For corporation entities, the data kept includes name, address, and telephone number. The database also keeps track of the types of planes each pilot is authorized to fly and the types of planes each employee can do maintenance work on.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Hours
Type of work

Deliverables:

Submit your work that should include:

- EERD: Complete EER diagrams of the above case studies.

- Documentation: Paragraphs explaining details about the design regarding following aspects

    - What diagramming software is used and any comments on the software. You can also submit handwritten diagrams. But it should be easy to read and understandable.
    - Any clarifications about your EERD which are not evident in the model itself.
    - Any assumptions you had to make with respect to the requirements.
    - Any constraints (business rules) apparent from the requirements that you are unable to model via your ERD.