

Database and Big Data Systems - Assignment 1

Due: 22 Jun 2025 11.59pm

This is an **individual** assignment. Submit your answers in a report in **PDF format**. You should include your name and student number in your report.

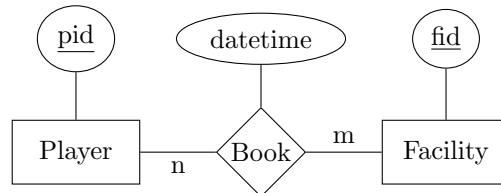


Figure 1: ER diagram.

In this homework, you need to design of a relational database. Consider the model in Figure 1,

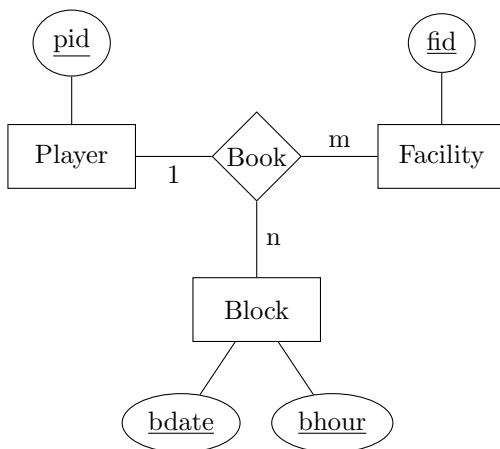
1 Question 1 [2 marks]

Modify the above design in Figure 1 so that the following rules can be enforced.

- A facility cannot be booked by multiple players with the same date time.
- A facility has to be booked in blocks of hours.

ignore

1.1 Answer



2 Question 2 [2 marks]

Convert your refined design from Question 1 into a set of Relational Schema. Supposed all the IDs fields are of type integer.

3 Question 3 [2 marks]

- List the set of SQL commands in MySQL which can be used to create tables and constraints for the relational model defined in the last question.
- Write a SQL query to find out the list of players who have booked some facilities and have never re-booked a facility.