Practical Exam

S6

You must create a database for train scheduling management. The purpose of the database is to contain all the information about the routes of all trains.

a) The entities of interest for the problem domain are: *Trains*, *Train Types*, *Stations* and *Routes*.

b) Each train has a name and belongs to a type. The train type has only a description.

c) Each route has a name, an associated train and a list of stations with the arrival and departure time in each station. The arrival and departure times are represented as an hour/minute pair (ex.: train arrives at 5pm and leaves at 5:10pm).

Your tasks are:

1) Write an SQL script to create a relational data model in order to represent the required data. (4 points)

2) Create a stored procedure that receives a route, a station, arrival time, departure time and adds the new station to the route. If the station already exists, the arrival and departure times are updated (2 points)

3) Create a view that shows name of routes which contain all stations (1 point)

4) Create a function that list all stations that have more that 2 trains at a given time in the day. (2 points)