**Database Design Coursework**

Student Name: Nikita Bryndak

Student ID: 230066257

Student Number:

**Scenario Topic Name** University Management System

**Scenario** (100 words maximum)

The university seeks to improve their database for managing students and classroom distribution. The system stores student details such as their student ID, name, email, number, and group, course enrollments. Groups have number of students in group and classes that this group is enrolled in. Classrooms are identified by room number and building, and room type with capacity and available facilities (e.g., projectors, whiteboards) . Each course has a unique course code, a start and end time, and a lecturer. Lecturers are assigned to classes and have unique IDs, names, and contact details. A class timetable is maintained, recording when and where each class is held, ensuring that room capacities are not exceeded.

**Example queries** (Minimum 5 – list, who, which, how many, most, fewest etc. - check that your models have the attributes needed to answer the queries)

**Entity Relationship Model** (insert a jpg image of your model exported from Visual Paradigm in the space below).

Insert your jpg image here

**Relational Model Tables**

* Copy and paste the table below for as many relational tables as you need
* Replace the placeholder names (table-name1, attribute-name5 etc) with the table and attribute names you derived from your ER model
* List primary key attributes first
* Add new rows to the tables (in the correct place) as needed
* Delete any unnecessary rows (attribute rows and foreign key rows if not used)
* Primary keys are to be specified in the format PRIMARY KEY (attribute-name1, attribute-name2, etc)
* Foreign keys are to be specified in the format ‘FOREIGN KEY (attribute-name) REFERENCES table-name (attribute-name)

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** table-name1 |  |
| **Attributes** |  |
| attribute-name1 |  |
| attribute-name2 |  |
| attribute-name3 |  |
| attribute-name4 |  |
| etc |  |
| **PRIMARY KEY** (attribute-name1, attribute-name2, etc) |  |
| **FOREIGN KEY** (attribute-name3) REFERENCES table-name2 (attribute-name67) |  |
| **FOREIGN KEY** (attribute-name4) REFERENCES table-name5 (attribute-name129) |  |
| etc |  |

Insert additional tables here……..

**Marker’s Comments** (Do not write in this section)

**Important:** Please note that marker’s corrections to your relational tables are there to help you construct a working database for the second coursework. They are not the determinant of your mark. For more information on how your work is assessed see the coursework specification and grade related criteria.

**Coursework Mark** (100 marks available):