

**Database Fundamentals (TIS1101) /
Database Systems (TDB2111)
Group Project (20%)**

Project Descriptions:

- 1) Students are to work in a group of 3 (max 4 students per group). No individual submission is allowed. Please form your group within the **SAME TUTORIAL** section.
- 2) Each group can only choose **ONE** of the following project titles to work on:
 - Title 1: Concert Ticketing System (track concert tickets purchased)
 - Title 2: Warehouse Management System (track inventory and stock locations)
 - Title 3: Car Service and Booking System (track service schedule and allow users to book car service)
 - Title 4: Event Registration System (post details of events and support registration of events)
 - Title 5: Speedy Courier Service (track courier delivery services)
 - Title 6: Net Library eBook Online Portal (allow subscribers to read e-book online or purchase and download e-books)
- 3) Students have the freedom to define the business rules and determine the scope of the project. The database design should reflect the defined business rules and students are expected to use **IBM DB2**.
- 4) Submission and assessment of project is divided into two parts – Part 1 and Part 2.

PART 1: Complete ERD (25 marks)

Students are required to submit a complete Entity-Relationship-Diagram (ERD) showing the relationships between entities. The ERD should be based on **Crow's foot** model, containing at least **6 entities** and a **maximum** of **10 entities**.

The requirements and marks allocations for Part 1 is defined below:

Items	Marks
1. Business Rules	5
2. Entities	5
3. Attributes with PK/FK defined	10
4. Data Dictionary	5
Total marks (Part 1)	25

Submission deadline for Part 1: **27th Dec, 2 pm**. Submit only hardcopy report.

Late submission, non-contributing members or plagiarism of content is to be penalized with **zero** mark.

PART 2: Final report submission (75 marks)

For Part 2, students are required to submit a complete report which comprises of the following items:

Items	Marks
1. Corrected Business rules (as in Part 1)	-
2. Corrected ERD	-
3. Relationships (Connectivity, cardinality and participation)	10
4. Data Definition Command (DDL)	5
5. Data insertion	5
6. Data Manipulation Language (DML): i. At least one aggregate function (<i>count, max, min, avg, sum</i>) ii. At least one query with a <i>group by</i> and <i>having</i> clauses iii. Triggers iv. Stored procedure v. View vi. Use of subqueries/nested queries vii. At least two queries <u>not</u> covered in lecture such as display the top <i>n</i> records, auto increment by 1 for every new row inserted, etc.	50
7. Presentation & fulfillment of project requirements	5
Total marks (Part 2)	75

Submission deadline for Part 2: **7th Feb 2017, 2 pm.**

Each group is to submit only one report (hardcopy and softcopy (in CD)). For CD, please include the report in .docx/.pdf and SQL queries (both DDL and DML) in .txt/.docx. Project is not to be submitted via email unless you are directed to do so by your respective lecturer.

Late submission, non-contributing members or plagiarism of content is to be penalized with **zero** mark.

Presentation is in **Week 13** and **Week 14**. The content of presentation should reflect the content of the report submitted.



TIS1101 Database Fundamentals / TDB2111 Database Systems

Group Project

Title: <title>

Prepared by:

Leader: <ID> <name> <email>
Member: <ID> <name> <email>
Member: <ID> <name> <email>
Member: <ID> <name> <email>