

DBMS Lab 2019-20 Spring Semester

Lab Day 2 (January 14, 2020) – 100 Marks

[Penalty for plagiarism/copying: You will be awarded 0 for all the problems for the lab day you were involved in plagiarism/copying and an additional 5 marks will be deducted out of the total of 40 in Lab. All persons involved will be awarded the same penalty irrespective of who has copied from whom. Decision of the lab teachers is final in this respect.]

1. Consider that we need to model the data required for managing Inter-IIT Sports Meet. In the meet, there are various events. Different IITs can participate in one or more of these events. For team events, there is a team from the IITs interested in participating in that event. For non-team events, multiple participants can compete from each IIT as individuals. For each event, we need to get the names (individuals or teams) of the first, second and third place holders. Also, there is a score for each of these positions, which could be different for different events. The date should be maintained in such a way that we can generate the final ranking of the different IITs. One individual can participate in at most one event. We need to know the names of team members in each team event for every IIT. Similarly, we need to know the names of all individual participants in the non-team events for every IIT.

Draw an Entity-relationship (E-R) diagram for capturing the above-mentioned information, clearly identifying all the entity sets (strong and weak if any), relationship sets, cardinalities, participation and attributes (including the type of attribute like key attribute, multi-valued attribute, derived attribute, etc.). You are free to choose meaningful attributes for the entities and relations but the above-mentioned requirements need to be satisfied. State all assumptions that you make. They should be reasonable.

First draw the ER diagram on the piece of paper provided. Then draw it using the ER-Diagram drawing tool suggested during the lab. Write your roll number, name and PC number on the piece of paper.

Submit (a) The piece of paper where you have drawn the ER diagram as a hardcopy and (b) A zip file containing (i) the exported output of the ER diagram (in its proprietary format) and (ii) the image file for it (in jpeg format) and (iii) an image (in jpeg format) of the hardcopy (Name it as Lab2_<Roll_no>_1.zip) through Moodle for Lab Day 2 Assignment 1. **[50]**

2. Derive a database schema containing all the relational schema for your ER Diagram. **[50]**