

submit your results/output in a PDF file. Submit your code in a text (.txt) file

Question 1: Creating Schema [2+6+4 Marks] Use the SQL script (a02script.sql) provided with the assignment to prepare the database schema. The ER diagram from which this schema is adopted is provided in Appendix A (not precisely based on it). Before you begin, you must make sure that you don't have schema objects with the same names already in your database.

Furthermore, you have to make the following additions to the schema provided in this script: •

Create an additional summary table "CFPCount" which stores the count of CFPs of each type.

Also, write a suitable trigger to update this table "CFPCount" whenever a new CFP row/entry is inserted or an existing is deleted. The details of this implementation are up to your imagination; as long as it fulfills the purpose, your solution will be considered correct

You are required to:

- Submit all the code for schema creation, after your additions, in a script file. Name this file as yourID_q1.sql.txt.
- Run this script on your MySQL server and add the screenshots. Your screenshots must:
 - Show the list of tables before the script is executed.
 - Show the statement that executes the script and the success status of the script.
 - Show the list of tables and other schema objects after the script is executed.
 - The whole script must execute successfully.

Question 2: Scraping and Inserting Data

[8 Marks]

Our next problem in this assignment is to extract the data from the CFP announcements and then insert it into the Database using the suitable INSERT statements. **Each student must process at least ONE CFP announcement and create the INSERT statements for this CFPs.** Select ONE (or more from the additional file in case you are interested to insert more data) CFP announcement(s) from your designated file (Appendix C), scrape the data from the CFP(s) (use the method described in Appendix B) and prepare the INSERT statements accordingly. **While scraping the data, you are not required to be precise; make sure you process some meaningful information.** At least 1 Topic, 1 People and 1 Activity must be inserted for a CFP. You are required to:

- Submit all the code in a script file. Name this file as yourID_q2.sql.txt.
- Run this script on MySQL server and add the screenshots. Your screenshots must:
 - Show the statement to execute script and the success status of script.
 - The whole script must execute successfully.

Question 3: Inserting some more Data

[4 Marks]

In order to make sure we have sufficient data to run queries, the students will share their scripts from Question 2 with each other through the folder created on Teams in Files. Every student will take the script from at least 5 other students and merge into her/his own database. You are required to:

- Submit the code taken from other students in a script file. Name this file as yourID_q3.sql.txt.
- Mention the student names and IDs of the five students in your submission document.
- Run this script on MySQL server and add the screenshots. Your screenshots must:
 - Show the statement to execute script and the success status of script.
 - The whole script must execute successfully.

Question 4: Query the database

[1+3+3 Marks]

Write the following two queries and execute them on the combined data of Question 2 and Question 3:

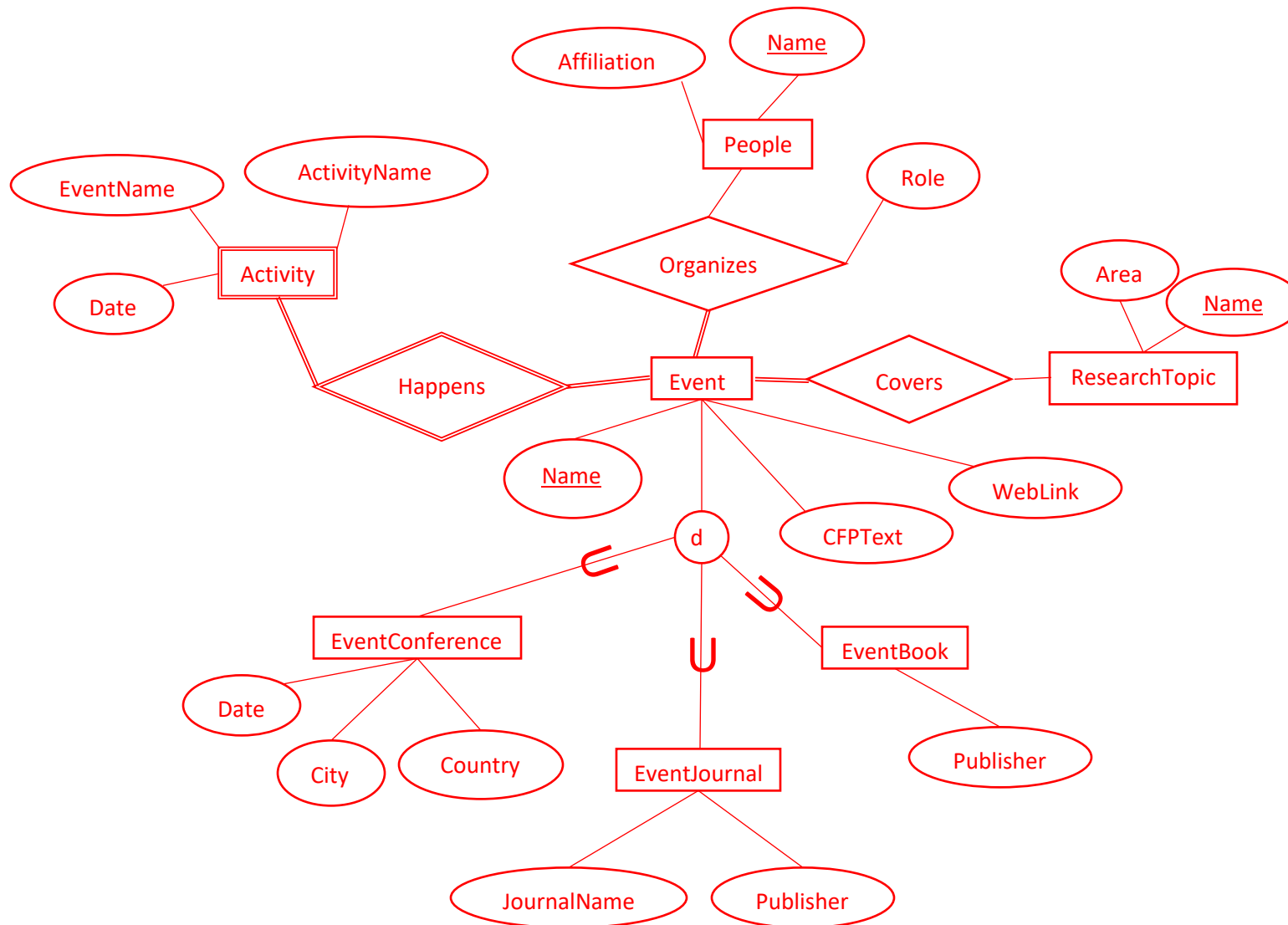
- a) Display the count of each event type grouped based on the calendar months i.e., how many events of each type happening in the months for which the data is present in the database. For EventConference we will consider the EvDate field while for the other two event types it will be the date of the earliest/lowest activity. You can show this query as three different queries for each event type. Showing it as a single query will be considered for BONUS credit.

- b) Display the one upcoming event for each event type i.e., the event with lowest date value for event activity. For all event types it will be the date of the earliest/lowest activity. You can show this query as three different queries for each event type. Showing it as a single query will be considered for BONUS credit.

You are required to:

- Submit all the code in a script file. Name this file as yourID_q4.sql.txt.
- Run each query separately on MySQL server and add the screenshots for each query. Your screenshots must:
 - Show the statement to execute script and the result of the statement.

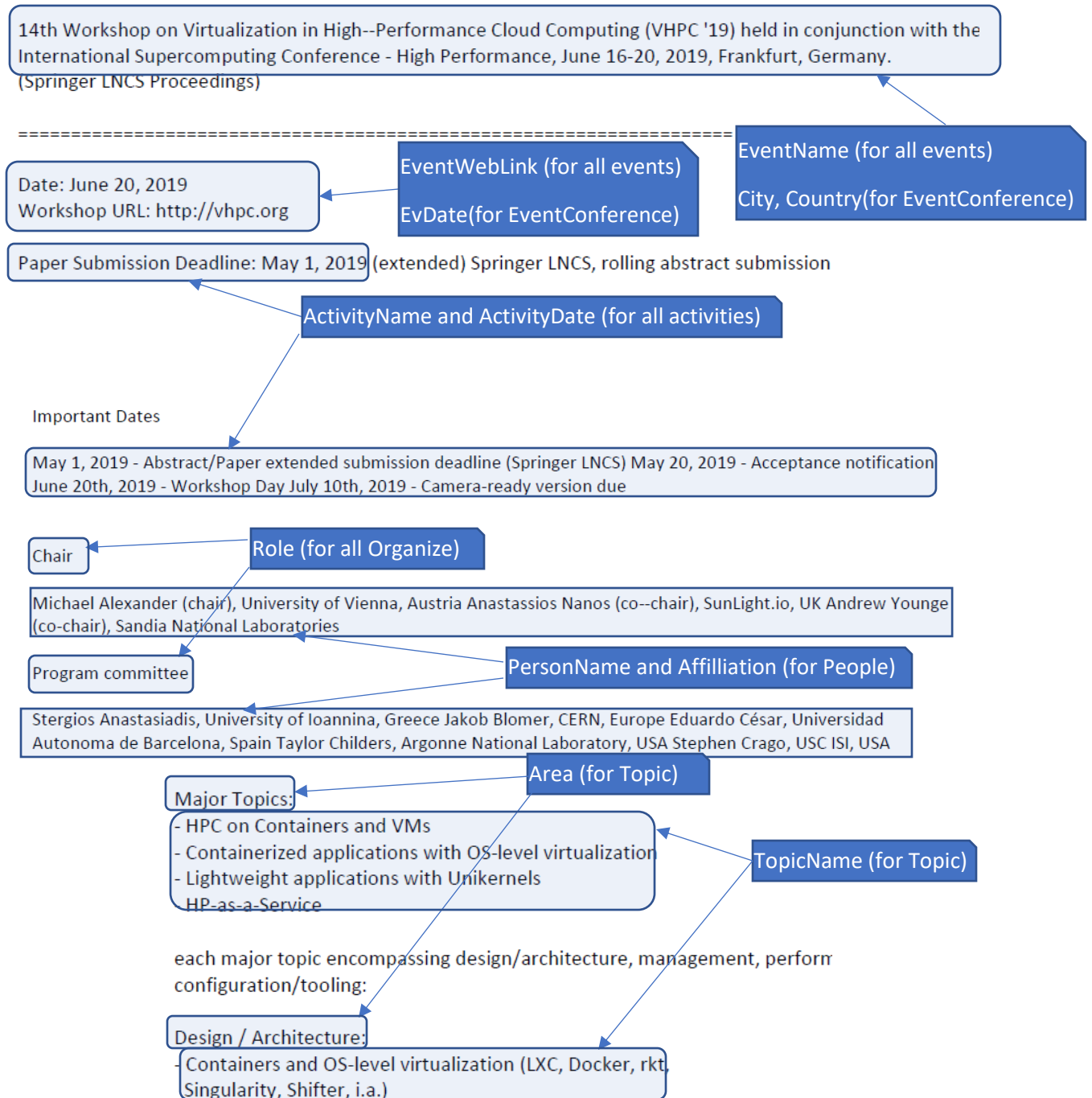
Appendix A



Appendix B: How to locate data in CFPs

There might be some minor variation in the terminology used in the different CFPs. When looking for People who Organize a certain CFP, you must extract at least one person from the CFP. Similarly, for Topic and Activity, you must extract at least one topic for that CFP and one activity.

The names highlighted refer to the field names used in script provided for Question 1.



For “Topic”, if you can’t locate the “Area” then make it same as “TopicName”.

The CFPs for the “EventConference” usually have phrases such as Conference, Symposium, Workshop in their name/title:

14th Workshop on Virtualization in High--Performance Cloud Computing (VHPC '19) held in conjunction with the International Supercomputing Conference - High Performance, June 16-20, 2019, Frankfurt, Germany.
(Springer LNCS Proceedings)

Fourteenth International Conference on Digital Information Management (ICDIM 2019) August 22-24, 2019 Irish Computer Society, Dublin, Ireland
(www.icdim.org)

International Symposium on High Performance Mobile Computing & Wireless Networks for HPC (MCWN 2019) As part of The 17th International Conference on High Performance Computing & Simulation (HPCS 2019)

15 - 19 July 2019 Dublin Ireland

The CFPs for the “EventJournal” will always have the name of Journal mentioned and usually have the phrase “Special Issue” in the name/title:

Call for papers

IEEE Internet of Things Journal Special Issue on Emerging Trends and Challenges in Fog Computing for IoT

The CFPs for the “EventBook” will always have the phrase “Call for Book Chapters” or “Call for Chapters” in the name/title:

Call for Book Chapters

BOOK TITLE: ***Internet of Things and Secure Smart Environments: Success and Pitfalls***

Chapman & Hall/CRC Big Data Series

To be published by CRC Press, Taylor & Francis, USA

URL: <https://sites.google.com/view/iot-smart-env>