

A. Prepare one document to be evaluated. In that you have to include:

- All design decisions that you take.
- All commands that you execute, and outcomes of each command.

B. Follow the instructions below.

1. Check if mariadb client and server is installed. If not, then install mariadb client and server.
2. Change root password of mariadb for your system
3. Consider the expert reviewer system of last semester. We want to build a database for that.
4. Create a database expert_system_[your_name], and switch to that database.
5. Create table for paper, year and author such that:
 - a. The relationships are such that there are some authors in each paper while paper has title and a unique identifier. If there are more than one author in a paper, one author will be the corresponding author. There should be at least one author in each paper.
 - b. Insert following records into your database:
 - i. M. Rudolph, F. Ruiz, S. Athey, and *D. Blei. **Structured embedding models for grouped data.** *Neural Information Processing Systems*, 2017.
 - ii. J. Manning, R. Ranganath, K. Norman, and *D. Blei. **Topographic factor analysis: A Bayesian model for inferring brain networks from neural data.** *PLoS ONE*, 9(5), 2014.
 - iii. [Nonconvex finite-sum optimization via SCSG methods](#). L. Lei, C. Ju, J. Chen, and M. I. Jordan. In S. Bengio, R. Fergus, *S. Vishwanathan, and H. Wallach (Eds), *Advances in Neural Information Processing Systems (NIPS)* 29, 2018.
 - iv. [Nonparametric combinatorial sequence models](#). F. Wauthier, *M. I. Jordan, and N. Jojic. *15th Annual International Conference on Research in Computational Molecular Biology (RECOMB)*, Vancouver, BC, 2011.
 - v. *Sahely Bhadra, Samuel Kaski, Juho Rousu (2017). Multi-view kernel completion. *MACHINE LEARNING*, 106(5):713–739.
 - c. Delete paper titled “Multi-view kernel completion”
 - d. Insert following
 - i. Antti Kangasrääsiö, Kumaripaba Athukorala, Andrew Howes, Jukka Corander, *Samuel Kaski, Antti Oulasvirta (2017). Inferring Cognitive Models from Data using Approximate Bayesian Computation. ACM SIGCHI annual conference on human factors in computing systems, Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, p. 1295-1306
 - ii. B. Milch, B. Marthi, S. Russell, *D. Sontag, D. L. Ong, and A. Kolobov. [BLOG: Probabilistic Models with Unknown Objects](#). In Lise Getoor and

Ben Taskar, eds. Statistical Relational Learning. Cambridge, MA: MIT Press, 2007.

- iii. **Blind Date: Using Proper Motions to Determine the Ages of Historical Images.** Jonathan T. Barron, David W. Hogg, Dustin Lang¹ and *Sam Roweis. The Astronomical Journal 136 (2008) 1490-1501
- e. Delete Antti Oulasvirta
- f. Insert following
 - i. Pekka Parviainen, *Samuel Kaski (2017). Learning structures of Bayesian networks for variable groups. INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, 88:110-127
- 6. Display all the papers published in 2017
- 7. Display all the papers published by Samuel Kaski
- 8. Display all the papers which have more than 2 authors
- 9. Display papers of all authors first name containing "Sam".
- 10. Delete Samuel Kaski from the database
- 11. Drop table for year
- 12. Incorporate following into your database by making appropriate changes.
 - a. There are some reviewers for each paper, where reviewers are also authors of some other papers. Each reviewer is expert in few fields. Each field has some title. One paper can contribute into multiple fields. Some fields can be as follows:
 - i. Bayesian models
 - ii. Approximate reasoning
 - iii. Human computer interaction
 - iv. Embedding models
 - v. Optimization
 - vi. Nonparametric models
- 13. Create table for conference, such that:
 - a. One conference can publish many papers, and each paper must be published in some conference, and at least three reviewers for each paper in the conference. The conference is held once in every year. Each conference also has a short name, and one unique way to denote that is using name and year.
 - b. Update your existing database if required.
- 14. Display all the papers sorted (ascending) in the order of conference name, and then year (descending).
- 15. Introduce the constraint into your database so that
 - a. There will be at least one editor for each paper.
 - b. There is also a list of topic a reviewer can be experts of and a paper also have a list of topics associated with it.
 - c. Modify previously created tables if required.