

# SWISH

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This assignment is **individual**.

**Deadline:** The deadline is **January 8, 2024, 16:59** and it is strict.

**Submission:** Please, submit your solution in Canvas as a single text file.

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## 1 SWISH

In this exercise we are going to solve a puzzle using Prolog. For that, you are going to use an on-line editor called SWISH [1]. The website also provides users with examples and tutorials; check, for instance, the Einstein's Riddle example.

For this exercise, let's suppose we have a group of 4 students (**s1**, **s2**, **s3** and **s4**). Each student belongs to a different chapter (**data**, **physics**, **machine** and **electro**); also, each studies in an specific building (**e** or **u**). Each of them takes a different transport to KTH (**tbana**, **bike**, **bus** and **walk**), and lives in a different neighborhood in Stockholm (**ostermalm**, **norrmmalm**, **kungsholmen** and **sodermalm**).

Furthermore, we know that two students are friends if they study in the same building.

- F1 **s4** studies at **u** building.
- F2 **s2** takes the **bike** to school.
- F3 **s3** belongs to the **electro** chapter.
- F4 The student that walks to university lives in **ostermalm**.
- F5 **s1** and **s3** are friends.
- F6 Exactly two students study in each building.
- F7 Whoever studies in **data** takes the **bus** from **kungsholmen**.
- F8 Only students from **physics** and **machine** are allowed on the **u** building.
- F9 All **electro** chapter students live in the same student housing in **ostermalm**.
- F10 The friend of the student that takes the **bike** lives in **norrmmalm**.

Download the file **SWISH.txt** from Canvas and paste its contents in the on-line editor [1]. The skeleton of the problem is ready. Your task is to fill in the missing facts.

**How to submit:** Under the assignment SWISH, upload SWISH.txt. Make sure that your submitted file does not contain syntax errors.

## REFERENCES

- [1] An online Prolog editor and solver, <https://swish.swi-prolog.org/>