

SWISH

This assignment is **individual**.

Deadline: The deadline is **Oct 25, 2024, 17:00** and it is strict.

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

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`, `norrmalm`, `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 `norrmalm`.

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/>