## **CSE 259 Fall 2024**

# **Project 1**

## 1. Project description

In this project, we are going to implement a prolog program that writes out ASU in various settings! Given that most of you are not familiar with prolog yet, we will make this project a *small team project* (2-3 students per team). Happy prolog!

# 2. Requirement specification:

In this project, you must implement the following predicate in prolog:

## ?- asu(LeftRightMargin, BottomTopMargin, SpaceBetweenCharacters, FontSize).

Below is an example output that is expected of your program. Notice that the unit is given in *text length or width*, depending on whether it specifies horizontal or vertical space.

**Bounding box** \*\*\* \*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\* \*\*\* \*\*\*\*\* \*\*\* \*\*\*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\*\*\*\* \*\*\*\*\* \*\*\* \*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\*\*\* \*\*\* \*\*\*\*\*

Here is another example:

That's it! For boundary cases, where it is not possible to draw, print "no".

#### 3. Submission:

Submission is *electronically* via canvas in a zip file. *One and only one* member must submit the file. It should contain the following files:

- a. README.txt: this file should include names of you team members *and* each of your contributions; be precise
- b. asu.pl: your code; make sure to test it thoroughly and *comment* properly.

## 4. Grading:

Grading will be based on the following criteria:

- a. Whether you code satisfies the functional requirements (70%).
- b. Boundary case checking (10%)
- c. Comment (20%)

### 5. Hints:

- a. There are four boundary case. Each will contain 2.5% (of the 10% marks assigned). Check them before you start drawing.
- b. Drawing the box and 'A' will be shown in the class. Follow that to draw the other characters.
- c. Get a piece of paper and a pen. Use a fixed size of font-size and draw. Try to come up with formulas using that and you will realize that having a fixed font makes it easier to generalize the formulas (so that any values we pass work!)