BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

A1 Online
June 13, 2022

---

1 Task

In C++, there is a concept of **Nested Template**. You may already know the concept of templates. Here are few examples -

- Foo<Bar>
- Foo<Bar<Bazz>>

You have to detect these templates in the input file. So here is what you have to do -

1. Create a **fresh(not in your offline please!!)** lex file(without any symboltable code or separate header file, without any offline pattern detections)
2. Write code to detect templates. For a template Foo<Bar<Bazz>> you will give output in *console*: **Template Foo<Bar<Bazz>> detected**

2 Errors

You have to detect following errors and print in *console* while detecting templates.

Unfinished Template This will occur for the input Foo< $Bar < Bazz >$ or $Foo < Bar <$

Invalid template You have to check whether two names in the templates are same or not, if same give this error. For example give error for $Foo < Foo >$(although in c++ it is perfectly okay to use a vector of vectors!)

3 Marks Distribution

1. Detecting Pattern - 6
2. Unfinished Template - 2
3. Invalid template - 2

4 Moodle Submission

Name the .l file with your student id. Keep this file in a folder named by your student id. Zip the folder and upload it.