Lab Work 7
Due Date: June 5, 2025 (EoD)
Groups of 2 (Exactly Same as Lab Work 6).

Use the Lab Work 6 as the basic input for this lab.

Modify your Lab Work 6, so that the AST is used as an input to a new method:
Define this method as

```
List IRGenModule (TreeNode) {……}
```

Here, ***List*** is a link list, that is returned by this method, and `TreeNode` is the root node of the AST that was created by the parser process in Lab 6.

`IRGenModule` is called by the main function in Bison, after a valid input has been accepted by the grammar. This method takes the tree and then generates the 3-address code for it completely. Refer to the slides for the example code generation process.

The 3-address code generated must be stored as **quads** in a link list, which is then returned by the method.

On successful return of the list, call another method: `printList(List)`
This method must be defined as:

```
void printList (List) {……}
```

Here the argument is the list returned by the `IRGenModule()` method. It prints the 3-addess code in proper sequence on stdout.

You may call these two methods individually, or call `printList` method with the `IRGenModule` as and argument to it. i.e. `printList( IRGenModule(rootNode) );`

You are at liberty to make any additional assumptions.

What to submit:

ONE Zip file (not RAR). Name of the file: **ID1_ID2.zip**
At the root of the zip file (NO sub-folders), place your **.l .y** and **makefile**