Assignment – Stage 2.

The repeat until command was added to the FunChecker as follows:

```
|        ^(REPEAT com t=expr)
                { checkType(Type.BOOL, t, $REPEAT);
                }
```

It gets the type of the expression of the repeat until command and it checks it to see if it is correct. In this case the expression must be of type boolean.

The changes in the FunChecker.fun file were highlighted by adding //EXTENSION REPEAT UNTIL comments in order to identify where the changes were made.

In order to achieve this second assignment objectives, tests were created as can be seen in the attached files. Below, each test is described:

rightTypeAndScopeRepeatUntil.fun:
In this file a simple repeat until loop was created, going from 1 to 4, by initialising a variable with 1 and incrementing it by 1 while it was lower than 5. No syntactic errors given. No contextual errors given.

wrongTypeRepeatUntil.fun
In this file the expression of the repeat until loop was of the type int, giving a type error:

```
Contextual analysis ...
1 scope/type errors
line 8:1 type is int, should be bool
Compilation failed
```

wrongScopeRepeatUntil.fun
In this file is attempted to access a variable "i" but it is not declared, giving the scope error below:

```
Contextual analysis …
1 scope/type errors
line 10:14 i is undeclared
Compilation failed
```