ASSIGNMENT - 2

Design a preprocessor on top of the base compiler infrastructure provided to you. Reuse the code you submitted in assignment 1, as necessary.

Refer to the documentation for assignment 1 for details on preprocessor directives. For this assignment you need to implement the **#ifdef** and **#endif** macro constructs. The **#ifdef** directive allows for conditional compilation. The preprocessor determines if the provided macro exists before including the subsequent code in the compilation process. **#elif** and **#else** cases must also be handled. The behavior of these constructs can be understood from the following examples:

1)
```
#def DEBUG 10
let x = 5;

#ifdef DEBUG
dbg x;
#endif
```

This will simplify to:
```
let x = 5;
dbg x;
```

AND

```
#def DEBUG 10
let x = 5;

#ifdef DEBUG2
dbg x;
#endif
```

This will simplify to:
```
let x = 5;
```

2)
The following lines of code would be equivalent:

```
#ifdef DEBUG
dbg x;
#elif DEBUG2
```

```
dbg 2*x;
#endif
```

3)
```
#def DEBUG 10
let x = 5;

#undef DEBUG

#ifdef DEBUG
dbg x;
#endif
```

<u>This will simplify to:</u>
```
let x = 5;
```