

Assignment 5: Modify the script to handle errors, such as the directory already existing or lacking permissions to create files.

Add a debugging mode that prints additional information when enabled.

```
DEBUG=false
```

```
if [ "$DEBUG" = "true" ]; then
```

```
    set -x
```

```
fi
```

```
debug_msg() {
```

```
    if [ "$DEBUG" = "true" ]; then
```

```
        echo "[DEBUG] $1"
```

```
    fi
```

```
}
```

```
debug_msg "Creating directory TestDir"
```

```
if ! mkdir -p TestDir ; then
```

```
    echo "Error: Could not create directory TestDir"
```

```
    exit 1
```

```
fi
```

```
debug_msg "Changing directory to TestDir"
```

```
if ! cd TestDir; then
```

```
    echo "Error: Could not change to directory TestDir"
```

```
    exit 1
```

```
fi
```

```
for i in {1..10}
```

```
do
```

```
    filename="File$i.txt"
```

```
    debug_msg "Creating file $filename with content $filename"
```

```
if ! echo $filename > $filename; then
```

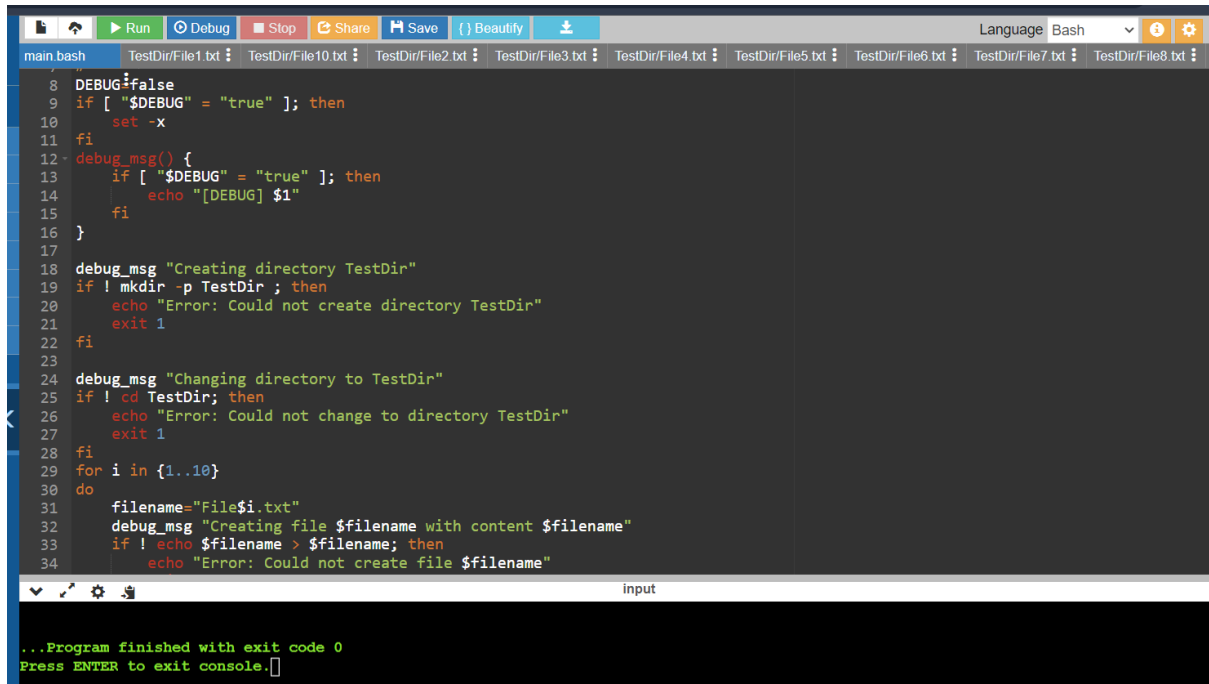
```
    echo "Error: Could not create file $filename"
```

```
    exit 1
```

```
fi
```

```
done
```

```
debug_msg "Script completed successfully"
```



The screenshot shows a code editor with a Bash script and its execution output. The script is as follows:

```
8  DEBUG=false
9  if [ "$DEBUG" = "true" ]; then
10     set -x
11 fi
12 debug_msg() {
13     if [ "$DEBUG" = "true" ]; then
14         echo "[DEBUG] $1"
15     fi
16 }
17
18 debug_msg "Creating directory TestDir"
19 if ! mkdir -p TestDir ; then
20     echo "Error: Could not create directory TestDir"
21     exit 1
22 fi
23
24 debug_msg "Changing directory to TestDir"
25 if ! cd TestDir; then
26     echo "Error: Could not change to directory TestDir"
27     exit 1
28 fi
29 for i in {1..10}
30 do
31     filename="File$i.txt"
32     debug_msg "Creating file $filename with content $filename"
33     if ! echo $filename > $filename; then
34         echo "Error: Could not create file $filename"
```

The output of the script execution is shown at the bottom:

```
...Program finished with exit code 0
Press ENTER to exit console.
```