

**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.**

**Ans:**

**Script:**

```
#!/bin/bash

if [[ $1 == "debug" ]]; then
    debug_mode=true
else
    debug_mode=false
fi

debuglog() {
    if [ "$debug_mode" = true ]; then
        echo "DEBUG: $1"
    fi
}

dir="TestDir"

if [ ! -d "$dir" ]; then
    mkdir "$dir"
    debuglog "Directory '$dir' created successfully."
else
    debuglog "Directory '$dir' already exists, skipping creation."
fi
```

```
if cd "$dir "; then
    debuglog "Changed directory to $dir."
else
    echo "Error: Failed to change directory to $dir . Check
permissions."
    exit 1
fi
for i in {1..10}; do
    f="File$i.txt"
    if echo "$f" > "$f"; then
        debuglog "Created and wrote to $f."
    else
        echo "Error: Failed to write to $f."
        exit 1
    fi
done
echo "all created successfull."
```

Output:

```
GNU nano 6.2 createfile.sh
if [[ $1 == "debug" ]]; then
  debug_mode=true
else
  debug_mode=false
fi
debuglog() {
  if [ "$debug_mode" = true ]; then
    echo "DEBUG: $1"
  fi
}
dir="TestDIR"
if [ ! -d "$dir" ]; then
  mkdir "$dir"
  debuglog "Directory '$dir' created successfully"
else
  debuglog "directory '$dir' already exists,"
fi
if cd "$dir"; then
  debuglog "chang directory to $dir "
else
  echo "error fail to change directory ti $dir check permission"
fi
```

```
GNU nano 6.2 createfile.sh
else
  debuglog "directory '$dir' already exists,"
fi
if cd "$dir"; then
  debuglog "chang directory to $dir "
else
  echo "error fail to change directory ti $dir check permission"
  exit 1
fi
for i in {1..10}; do
  f="File$i.txt"
  if echo "$f" > "$f"; then
    debuglog "created and wrote to $f "
  else
    echo "error fail to write to $f check write permission"
    exit 1
  fi
done
echo "all created successfully"
```

```
rps@rps-virtual-machine: ~/TestDIR
rps@rps-virtual-machine:~/TestDIR$ ./createfile.sh
all created successfully
rps@rps-virtual-machine:~/TestDIR$ ls -l
total 48
-rwxrwxr-x 1 rps rps 634 May 18 02:45 createfile.sh
-rw-rw-r-- 1 rps rps 11 May 18 02:18 File10.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File1.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File2.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File3.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File4.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File5.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File6.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File7.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File8.txt
-rw-rw-r-- 1 rps rps 10 May 18 02:18 File9.txt
drwxrwxr-x 2 rps rps 4096 May 18 02:44 TestDIR
rps@rps-virtual-machine:~/TestDIR$ cat File9.txt
File9.txt
rps@rps-virtual-machine:~/TestDIR$ cat File10.txt
File10.txt
rps@rps-virtual-machine:~/TestDIR$
```