Assignment 1: Ensure the script checks if a specific file (e.g., myfile.txt) exists in the current directory. If it exists, print "File exists", otherwise print "File not found".

```
#!/bin/bash
# Check if the file exists
if [ -e "myfile.txt" ]; then
    echo "File exists"
else
    echo "File not found"
fi
```

Save this script in a file, for example, check_file.sh, and make it executable using the '**chmod'** command:

bash

```
chmod +x check_file.sh
```

Then you can run it in the directory where you want to check for the existence of myfile.txt.

Assignment 2: Write a script that reads numbers from the user until they enter '0'. The script should also print whether each number is odd or even.

```
#!/bin/bash
```

```
while true; do
   read -p "Enter a number (or 0 to exit): " number
   # Check if the number is 0, if so, exit the loop
   if [ "$number" -eq 0 ]; then
      echo "Exiting the script."
      break
   fi
  # Check if the number is even or odd
   if [ "$((number % 2))" -eq 0 ]; then
      echo "$number is even."
   else
      echo "$number is odd."
   fi
done
```

Save this script in a file, for example, read_numbers.sh, and make it executable using the '**chmod**' command:

bash

```
chmod +x read_numbers.sh
```

Then you can run it in your Linux terminal. It will prompt you to enter numbers until you enter 0, and for each number entered, it will print whether it's odd or even.

Assignment 3: Create a function that takes a filename as an argument and prints the number of lines in the file. Call this function from your script with different filenames.

bash

```
#!/bin/bash

# Function to count the number of lines in a file
count_lines() {
  filename="$1"
  if [ -f "$filename" ]; then
    lines=$(wc -l < "$filename")
    echo "Number of lines in $filename: $lines"
  else
    echo "$filename does not exist."
  fi
}

# Call the function with different filenames
count_lines "file1.txt"
count_lines "file2.txt"
count_lines "file3.txt"
```

Save this script in a file, for example, count_lines.sh, and make it executable using the chmod command:

bash

chmod +x count_lines.sh

Replace "file1.txt", "file2.txt", and "file3.txt" with the actual filenames you want to count the lines for. When you run the script, it will print the number of lines in each specified file. If the file does not exist, it will print a message indicating that.

Assignment 4: Write a script that creates a directory named TestDir and inside it, creates ten files named File1.txt, File2.txt, ... File10.txt. Each file should contain its filename as its content (e.g., File1.txt contains "File1.txt").

```
#!/bin/bash
# Create the directory TestDir if it doesn't exist
mkdir -p TestDir
# Loop to create ten files inside TestDir
for ((i=1; i<=10; i++)); do
    filename="TestDir/File$i.txt"
    echo "Creating $filename"
    echo "File$i.txt" > "$filename"
done
echo "Files created successfully."
```

Save this script to a file, let's say create_files.sh, then give it execute permissions using chmod +x create_files.sh. After that, you can run the

script using ./create_files.sh, and it will create the directory TestDir with ten files inside it, each containing its filename as its content.