Bash Scripting

BASH - Bourne Again SHell

- it is a command line interpreter and scripting language commonly used in NUIX-Based System
- Examples: LINUX, Mac OS
- it allows users to automate the tasks, Manages System Operations , and Write Scripts for repetitive tasks

SHEBANG -> #!/bin/bash

Step:1 CREATE A FILE

```
nano hello.sh
```

Step:2 Create Code and Execute

```
#!/bin/bash
echo "Hello World!"
```

Step:3 Make the Script Executable

```
chmod +x hello.sh
//it will make the script executable
```

Step:4 Run the File

```
./hello.sh
```

Example -2 Read Data

```
#!/bin/bash

echo "Enter Your Name"
read user_name

echo "Hello, $user_name"
```

Example-3 If-else

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

```
echo "Enter a Number"
read num


if[ $num -gt 10]; then
echo "The Number is greater than 10"
else
echo "The Number is 10 or less"
fi
```

Example: 4 For-Loop

```
#!/bin/bash

for i in {1..20}; do
echo "Iteration $i"
done
```

Example: 5 While Loop

```
#!/bin/bash
count=1
while [ $count -le 5 ]; do
echo "Count: $count"
((count++))
done
```

Example: 6 function in Bash

```
#!/bin/bash

greet(){
echo "Hello. $1!"
}
greet "Nikunj"
```

Example : 7 Working With Arguments

```
#!/bin/bash
echo "Script Name: $0"
echo "First Argument:$1"
```

```
echo "Second Argument:$2"
```

Example: 8 File Operation

```
#!/bin/bash

file="example.txt"

if [ -f "$file" ]; then
echo "File Exist"
else
echo "File Does Not Exist."
fi
```

Example : 9 Read Data Line By Line

```
#!bin/bash
while read line; do
echo "$line"
done <example.txt
```

Task:1

- Create a Script that will check if the file exist or not
- if it exist it will read the line or lines

Task: 2

- **Demonstrating writing a simple bash script to automate repetitive(Eg: Generating Multiple File)**
- **Step:1** Create Automatic directory
- **Step:2** Create Script that will automatically creates n no of files within the directory
- **Step:3** Print the message of file creation/completion

Solution:

```
#!/bin/bash


DIR="my_files"
```

```
NUM_OF_FILES=4


mkdir -p $DIR

for i in $(seq 1 $NUM_OF_FILES); do
FILE="$DIR/file_$i.txt"
echo "This is file number $i" > $FILE
echo "Created $FILE"
done

echo "File creation completed!"
```