Command line assignment

Question 1. Write a bash script to get the current date, time, username, home directory and current working directory.

```
#! /bin/bash

echo "current date:$(Date)"
echo "Username : $(whoami)"echo "homedirectory : $HOME"
echo "CurrentDirectory:$(pwd)"
```

Question 2. Write a bash script (name Table.sh) to print the Table of a number by using a while loop. It should support the following requirements.

- The script should accept the input from the command line.
- If you don't input any data, then display an error message to execute the shell correctly

```
#! /bin/bash

#if argument not given then give error!
if [ $# -eq 0 ]
  then
    echo "Error!,Execute the script correctly"
fi

#taking first argument in num variable
num=$1

a=1

#loop to print table
```

```
while [ $a -lt 11 ];
do
     echo " $num * $a : "$((a* $num))
     ((a++))
done
```

Question 3. Write a Function in bash script to check if the number is prime or not? It should support the following requirement.

- The script should accept the input from the User.

```
#! /bin/bash

Function primeNumber()
{
echo "Enter a number :"
read num

flag=0

a=2

#run a loop till root(num)
#if number get divided by any number then make flag=1

while [ $((a*a)) -lt $((num)) ]
do
     if [ $((num%a )) == 0 ];
     then
          flag=1
          break
     fi
((a++))
done
```

```
#if flag is 0 then it is prime number
if [ $flag -eq 0 ];
then
     echo "PRIME NUMBER"
else
     echo "NOT A PRIME NUMBER"
fi
}
primeNumber;
```

Question 4. Create a bash script that supports the following requirement. ● Create a folder ‘Assignment’.

- Create a file ‘File1.txt’ inside ‘Assignment’ Folder.
- Copy all the content of Table.sh(2nd script) in ‘File1.txt’ without using ‘cp’ and ‘mv’ command.
- Append the text Welcome to Sigmoid’ to the ‘File1.txt’ file.
- List all the directories and files present inside Desktop Folder.

```
#! /bin/bash

#create a folder if it not exist

echo "Enter Folder name"
read dirname

if [ ! -d "$dirname" ]
then
    echo "Folder doesn't exist. Creating now"
    mkdir ./$dirname
    echo "Folder created"
else
```

```
    echo "Folder exists"
fi
$(touch dirname/file1.txt)
#creating a file inside assignment folder
#echo "hello i am here" > Assignment/file1.txt

#taking content of Table.sh in var1
var1=$(cat Table.sh)

echo "copying content of Table.sh in file1.txt:"

#writing content of var1 in file1.txt
echo "$var1" > dirname/file1.txt

cat dirname/file1.txt

#appending  welcome to sigmoid in file1.txt
echo "Welcome to Sigmoid" >> dirname/file1.txt

cat dirname/file1.txt

#listing the contents of desktop
echo "List all the files and folder on desktop: "
echo $(ls /Users/rahul/desktop)
```

Question 5. You have given an array. Using Bash script, print its length, maximum element and minimum element. arr=(2 3 4 1 6 7).

```
#! /bin/bash

#initializing an array
arr=(2 3 4 1 6 7)
```

```
echo ${arr[@]}

#taking three variables len,max,min.
len=0
maxm=${arr[0]}
minm=${arr[0]}


#using for loop to get max and min
for i in ${arr[@]}
do
   if [ $maxm -lt $i ]
    then
      maxm=$i
   fi
   if [ $minm -gt $i ]
   then
     minm=$i
   fi
((len++))

done

#printing length,max,and min
echo "length of array:"
echo $len
echo "maximum value in array:"
echo $maxm
echo "minimum value in array:"
echo $minm
```