Linux Programming- Assignment 7



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**1. What is a bash shell script?**  
A bash shell script is a text file with a series of Linux commands written in order. When you run the script, those commands execute one by one.  
Example:

#!/bin/bash

echo "This is my first script"

**2. Script to print “Hello World”:**

#!/bin/bash

echo "Hello World"

**3. Purpose of comments (#):**  
Comments explain the code for humans. They are ignored by the shell during execution.

**4. Declaring variables in shell script:**  
Shell does not have strict types like int, float, etc. Everything is treated as a string, but you can use them as numbers in arithmetic.

Example:

name="Shrusti" # string

num=10 # integer

pi=3.14 # float (handled as string, but usable)

flag=true # boolean-like

char='A' # single char

**5. Script to display current date and time:**

#!/bin/bash

date

**6. Constant vs Variable:**

* **Variable:** Value can change during execution.
* **Constant:** Value once set does not change.  
  (You can make a constant by using readonly in bash).

**7. Script to add two numbers:**

#!/bin/bash

read -p "Enter first number: " a

read -p "Enter second number: " b

sum=$((a+b))

echo "Sum is $sum"

**8. Use of source command:**  
It runs another script inside the current shell without starting a new process. Useful for loading environment variables.  
 Example: source myscript.sh

**9. Debugging a shell script (2 ways):**

1. Run with bash -x script.sh (shows step-by-step execution).
2. Add set -x inside script (enable debugging from that point).

**10. Script to create and delete a file:**

#!/bin/bash

touch test.txt

echo "File created"

rm test.txt

echo "File deleted"