| **Name:** Abhinav Rajesh | **Roll No:** 03 |
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# PALINDROME

**Aim:** Write a shell program to check whether a string is a palindrome or not.

**Algorithm:**

1. Start
2. Read the input string from the user into "STRING"
3. Initialize the variable "LENGTH" with the length of the input string
4. Initialize variable "REVERSE" as an empty string("")
5. Define a for loop from "LENGTH - 1" to 0
     a. REVERSE = REVERSE+STRING[i]
5. Check if REVERSE == STRING, then print "Palindrome"
6. Else print "Not Palindrome"
7. STOP

**Program**

```bash
#! /bin/bash

echo Program done by Abhinav Rajesh 20219003
echo "Enter the string:"
read STRING

LENGTH=${#STRING}
REVERSE=""

for (( i=$LENGTH-1; i>=0; i-- ))
do
    REVERSE="$REVERSE${STRING:$i:1}"
done

if [ $STRING == $REVERSE ]
then
    echo "$STRING is palindrome"
else
    echo "$STRING is not palindrome"
fi
```

**Output**

```
~/Documents/College/S6/OSLab/lab2    ./palindrome.sh
Program done by Abhinav Rajesh 20219003
Enter the string:
hello
hello is not palindrome
```

```
  ⟳    ▶  ~/Documents/College/S6/OSLab/lab2    ./palindrome.sh
Program done by Abhinav Rajesh 20219003
Enter the string:
racecar
racecar is palindrome
```

**Result:**

Script to check if a string is a palindrome or not is executed successfully

**Remarks:**