# Bash Scripting

## Output and Input

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# Output and Error Redirection

- The > notation is used to redirect stdout to a file
- 2> notation is used to redirect stderr
- &> is used to redirect both stdout and stderr

output_error.sh

```
#!/bin/bash

echo ""
echo "First ls"
ls -l file1.txt file2.txt
touch file1.txt
echo ""
echo "Second ls"
ls -l file1.txt file2.txt
echo""
echo "Third ls"
ls -l file1.txt file2.txt > stdout.txt
echo ""
echo "Fourth ls"
ls -l file1.txt file2.txt 2> stderr.txt
echo ""
echo "Fifth ls"
ls -l file1.txt file2.txt &> stdouterr.txt
echo ""
echo "Sixth ls"
ls -l file1.txt file2.txt 2> /dev/null
```

# Output and Error Redirection

**Output**

```
First ls
ls: file1.txt: No such file or directory
ls: file2.txt: No such file or directory

Second ls
ls: file2.txt: No such file or directory
-rw-r--r--  1 indranilsaha  staff  0 Feb 14 23:41 file1.txt

Third ls
ls: file2.txt: No such file or directory

Fourth ls
-rw-r--r--  1 indranilsaha  staff  0 Feb 14 23:41 file1.txt

Fifth ls

Sixth ls
-rw-r--r--  1 indranilsaha  staff  0 Feb 14 23:41 file1.txt
```

# Input

input.sh

```
#!/bin/bash

# Ask the user for their name
echo "Hello, who am I talking to?"
read varname
echo "It is nice to meet you, $varname!"

# Ask for login details
read -p 'Username: ' uservar
read -sp 'Password: ' passvar
echo ""
echo "Thankyou $uservar!! We now have your login details."

# Demonstrate how read actually works
echo "What cars do you like?"
read car1 car2 car3
echo Your first car was: $car1
echo Your second car was: $car2
echo Your third car was: $car3
```

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