

# Shell File Test Operator

Assume a variable **file** holds an existing file name "test" the size of which is 100 bytes and has **read**, **write** and **execute** permission on –

Operat or	Description	Example
<b>-b file</b>	Checks if file is a block special file; if yes, then the condition becomes true.	[ -b \$file ] is false.
<b>-c file</b>	Checks if file is a character special file; if yes, then the condition becomes true.	[ -c \$file ] is false.
<b>-d file</b>	Checks if file is a directory; if yes, then the condition becomes true.	[ -d \$file ] is not true.
<b>-f file</b>	Checks if file is an ordinary file as opposed to a directory or special file; if yes, then the condition becomes true.	[ -f \$file ] is true.
<b>-t file</b>	Checks if file descriptor is open and associated with a terminal; if yes, then the condition becomes true.	[ -t \$file ] is false.
<b>-r file</b>	Checks if file is readable; if yes, then the condition becomes true.	[ -r \$file ] is true.
<b>-w file</b>	Checks if file is writable; if yes, then the condition becomes true.	[ -w \$file ] is true.
<b>-x file</b>	Checks if file is executable; if yes, then the condition becomes true.	[ -x \$file ] is true.
<b>-s file</b>	Checks if file has size greater than 0; if yes, then condition becomes true.	[ -s \$file ] is true.
<b>-e file</b>	Checks if file exists; is true even if file is a directory but exists.	[ -e \$file ] is true.

EXAMPLE

Assume a variable file holds an existing file name **"/home/shaily/demo.sh"** the size of which is 100 bytes and has **read**, **write** and **execute** permission –

```
#!/bin/sh
```

```
file="/home/shaily/demo.sh"
```

```
if [ -r $file ]
```

```
then
```

```
    echo "File has read access"
```

```
else
```

```
    echo "File does not have read access"
```

```
fi
```

```
if [ -w $file ]
```

```
then
```

```
    echo "File has write permission"
```

```
else
```

```
    echo "File does not have write permission"
```

```
fi
```

```
if [ -x $file ]
```

```
then
```

```
    echo "File has execute permission"
```

```
else
```

```
    echo "File does not have execute permission"
```

```
fi
```

```
if [ -f $file ]
```

```
then
```

```
    echo "File is an ordinary file"
```

```
else
```

```
    echo "This is sepcial file"
```

```
fi
```

```
if [ -d $file ]
```

```
then
```

```
    echo "File is a directory"
```

```
else
```

```
    echo "This is not a directory"
```

```
fi
```

```
if [ -s $file ]
```

```
then
```

```
    echo "File size is not zero"
```

```
else
```

```
    echo "File size is zero"
```

```
fi
```

```
if [ -e $file ]
```

```
then
```

```
    echo "File exists"
```

```
else
```

```
    echo "File does not exist"
```

```
fi
```