

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 –

Operator	Description	Example
-b file	Checks if file is a block special file; if yes, then the condition becomes true.	[-b \$file] is false.
-c file	Checks if file is a character special file; if yes, then the condition becomes true.	[-c \$file] is false.
-d file	Checks if file is a directory; if yes, then the condition becomes true.	[-d \$file] is not true.
-f file	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.
-t file	Checks if file descriptor is open and associated with a terminal; if yes, then the condition becomes true.	[-t \$file] is false.
-r file	Checks if file is readable; if yes, then the condition becomes true.	[-r \$file] is true.
-w file	Checks if file is writable; if yes, then the condition becomes true.	[-w \$file] is true.
-x file	Checks if file is executable; if yes, then the condition becomes true.	[-x \$file] is true.
-s file	Checks if file has size greater than 0; if yes, then condition becomes true.	[-s \$file] is true.
-e file	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
```