

R_Workspace

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Get Current Working Directory

```
getwd()
```

```
## [1] "C:/Users/admin/Desktop/GitHub Upload"
```

List Objects in Current Workspace

```
a=10  
.a=20  
doc="ABC"  
cad=789  
cam=12.5
```

```
# List Objects in Current Workspace  
ls()
```

```
## [1] "a" "cad" "cam" "doc"
```

```
# List all Objects in Current Workspace  
ls(all.names = TRUE)
```

```
## [1] ".a" "a" "cad" "cam" "doc"
```

```
# List Objects that matches to pattern  
ls(pattern = "c")
```

```
## [1] "cad" "cam" "doc"
```

```
ls(pattern = "^c")
```

```
## [1] "cad" "cam"
```

```
ls(pattern = "c$")
```

```
## [1] "doc"
```

List all files in Current Working Directory

```
dir()
```

```
## [1] "dir1"                "dir2"
## [3] "mydir"               "MyFile2.R"
## [5] "MyFile3.R"          "outer_mydir"
## [7] "R_Array_Operations.html" "R_Array_Operations.pdf"
## [9] "R_Array_Operations.Rmd" "R_Factor.html"
## [11] "R_Factor.Rmd"        "R_List.html"
## [13] "R_List.pdf"          "R_List.Rmd"
## [15] "R_Matrix_Operations.html" "R_Matrix_Operations.Rmd"
## [17] "R_Packages.html"      "R_Packages.Rmd"
## [19] "R_Workspace.docx"     "R_Workspace.html"
## [21] "R_Workspace.Rmd"
```

```
# OR #
```

```
list.files()
```

```
## [1] "dir1"                "dir2"
## [3] "mydir"               "MyFile2.R"
## [5] "MyFile3.R"          "outer_mydir"
## [7] "R_Array_Operations.html" "R_Array_Operations.pdf"
## [9] "R_Array_Operations.Rmd" "R_Factor.html"
## [11] "R_Factor.Rmd"        "R_List.html"
## [13] "R_List.pdf"          "R_List.Rmd"
## [15] "R_Matrix_Operations.html" "R_Matrix_Operations.Rmd"
## [17] "R_Packages.html"      "R_Packages.Rmd"
## [19] "R_Workspace.docx"     "R_Workspace.html"
## [21] "R_Workspace.Rmd"
```

To create New Directory

```
# Checking for 'mydir' before created
dir(pattern= "mydir", include.dirs = TRUE)
```

```
## [1] "mydir"                "outer_mydir"
```

```
# Creating 'mydir'
dir.create('mydir')
```

```
## Warning in dir.create("mydir"): 'mydir' already exists
```

```
# Checking for 'mydir' after created
dir(pattern= "my", include.dirs = TRUE)
```

```
## [1] "mydir"                "outer_mydir"
```

To create Directory inside Directory

```
# Creating 'inner_mydir' inside 'outer_mydir'  
dir.create(file.path('outer_mydir','inner_mydir'),recursive = TRUE)
```

```
## Warning in dir.create(file.path("outer_mydir", "inner_mydir"), recursive =  
## TRUE): 'outer_mydir\inner_mydir' already exists
```

Set as Working Directory

```
#Setting 'mydir' as working directory  
setwd('mydir')
```

Creating New file in Current Working Directory

```
#Creating 'myfile' as working directory  
file.create('MyFile.R')
```

```
## [1] TRUE
```

```
file.create('MyFile3.R')
```

```
## [1] TRUE
```

Checking Specific File Exist in Working Directory

```
# Checking 'MyFile.R' File Exist in Working Directory or not?  
file.exists('MyFile.R')
```

```
## [1] TRUE
```

```
file.exists('MyFile2.R')
```

```
## [1] TRUE
```

To Open a File for editing

```
# Opening a File for editing using command  
file.edit('MyFile.R')
```

Getting Information about File

```
# Checking 'MyFile.R' File Exist in Working Directory or not?  
file.info('MyFile.R')
```

```
##           size isdir mode           mtime           ctime  
## MyFile.R    0 FALSE  666 2021-02-22 23:47:54 2021-02-22 23:47:54  
##           atime exe  
## MyFile.R 2021-02-22 23:47:54 no
```

```
# To Check Specific Parameter value  
file.info('MyFile.R')$size
```

```
## [1] 0
```

```
file.info('R_List.Rmd')$size
```

```
## [1] 4744
```

```
file.info('MyFile.R')$isdir
```

```
## [1] FALSE
```

```
file.info('mydir')$isdir
```

```
## [1] TRUE
```

```
file.info('MyFile.R')$mode
```

```
## [1] "666"
```

```
file.info('R_List.Rmd')$mode
```

```
## [1] "666"
```

To Rename a File

```
# Rename 'MyFile.R' to 'MyFile2.R'  
file.rename('MyFile.R', 'MyFile2.R')
```

```
## [1] TRUE
```

To Remove Specific File

```
# Remove 'MyFile3.R'  
file.remove('MyFile3.R')
```

```
## [1] TRUE
```

To get Relative Path of file [independent from root]

```
# relative path of 'MyFile2.R'  
file.path('MyFile2.R')
```

```
## [1] "MyFile2.R"
```

To Copy file to another file

```
# Copy 'MyFile2.R' to 'mytest3.R'  
file.copy('MyFile2.R', 'MyFile3.R')
```

```
## [1] TRUE
```

Practice Assignment

1. Create 2 directories 'dir1' and 'dir2'
2. create 5 files in dir1 [1test.R 2test.R 3test.R 4test.R 5test.R]
3. Copy all 5 files from dir1 to dir2

```
# Creating 2 directories 'dir1' and 'dir2'  
dir.create("dir1")
```

```
## Warning in dir.create("dir1"): 'dir1' already exists
```

```
dir.create("dir2")
```

```
## Warning in dir.create("dir2"): 'dir2' already exists
```

```
# creating vector of the file names [1test.R 2test.R 3test.R 4test.R 5test.R]  
files <- paste0(1:5, "test.R")
```

```
# Creating files from vector  
file.create(paste("dir1", files, sep = .Platform$file.sep))
```

```
## [1] TRUE TRUE TRUE TRUE TRUE
```

```
# Checking for successful file created  
dir("dir1")
```

```
## [1] "1test.R" "2test.R" "3test.R" "4test.R" "5test.R"
```

```
dir("dir2")

## [1] "1test.R" "2test.R" "3test.R" "4test.R" "5test.R"

# Making files Ready for Copy
rawPath <- file.path("dir1")
dataPath <- file.path("dir2")
dataFiles <- dir(rawPath, "*.R", ignore.case = TRUE, all.files = TRUE)

# Copy all Files from dir1 to dir2
file.copy(paste(rawPath, dataFiles, sep = .Platform$file.sep), dataPath, overwrite = TRUE)

## [1] TRUE TRUE TRUE TRUE TRUE
```