

How can I check if a directory exists in R and what is an example of this?

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In R, a programming language used for statistical computing and graphics, there are several ways to check if a directory exists. One way is to use the function "file.exists()" which takes in the path of the directory and returns a boolean value indicating if the directory exists or not. For example, if we have a directory named "data" in our current working directory, we can use the following command to check if it exists:

```
file.exists("data")
```

If the directory exists, the function will return TRUE, otherwise it will return FALSE. This is a useful tool for ensuring the existence of a directory before performing any operations or analyses on the data within it.

Check if a Directory Exists in R (With Example)

You can use the following methods to check if a directory exists in R:

Method 1: Check If Directory Exists

```
dir.exists(file.path(main_dir, sub_dir))
```

This function will return TRUE if the directory exists and FALSE if it does not.

Method 2: Create Directory If It Doesn't Exist

```
#define directory
```

```
my_directory <- file.path(main_dir, sub_dir)
```

```
#create directory if it doesn't exist
```

```
if (!dir.exists(my_directory)) {dir.create(my_directory)}
```

Note that main_dir and sub_dir are strings that specify main directory and sub directory paths.

The following examples show how to use each method in practice.

Example 1: Check If Directory Exists

Suppose we would like to check if the following directories exist:

```
C:/Users/bob/"C:/Users/bob/Documents"C:/Users/bob/Data_Science_Documents"
```

We can use the following syntax to do so:

```
#define main directory
```

```
main_dir <- "C:/Users/bob/"
```

```
#define various sub directories
```

```
sub_dir1 <- "Documents"
```

```
sub_dir2 <- "Data_Science_Documents"
```

```
#check if main directory exists
```

```
dir.exists(file.path(main_dir))
```

TRUE

```
#check if main directory and sub directory 1 exists  
dir.exists(file.path(main_dir, sub_dir1))
```

TRUE

```
#check if main directory and sub directory2 exists  
dir.exists(file.path(main_dir, sub_dir2))
```

FALSE

From the output we can see:

```
C:/Users/bob/" - ExistsC:/Users/bob/Documents" -  
ExistsC:/Users/bob/Data_Science_Documents" - Does  
Not Exist
```

Method 2: Create Directory If It Doesn't Exist

Suppose we would like to create the following directory if it doesn't already exist:

```
C:/Users/bob/Data_Science_Documents"
```

We can use the following syntax to do so:

```
#define main directory
```

```
main_dir <- "C:/Users/bob/"
```

```
#define sub directory
```

```
sub_dir <- "Data_Science_Documents"
```

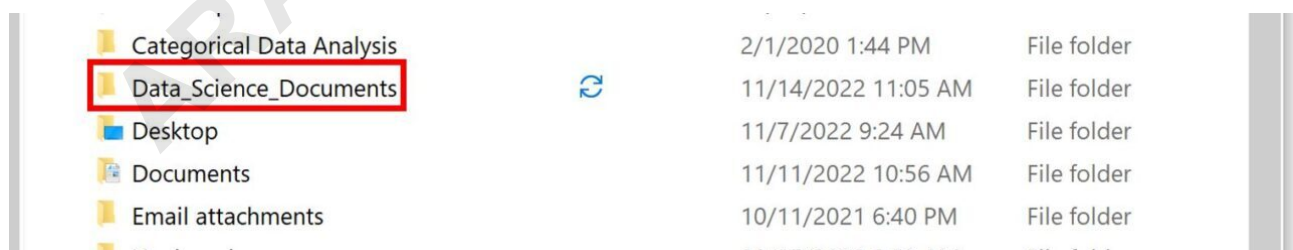
```
#define directory
```

```
my_directory <- file.path(main_dir, sub_dir)
```

```
#create directory if it doesn't exist
```

```
if (!dir.exists(my_directory)) {dir.create(my_directory)}
```

If we navigate to this folder on our computer, we can see that this directory did not exist but has now been created:



Note that if this directory already existed, a new one would not be created.