Big Data: Data Wrangling Boot Camp
Assumed File Structure

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What are we going to cover?

Most of the R scripts used in this boot camp assume a certain directory structure, and specific locations for scripts, data files, and images. To wit:

1. Scripts directory – where R scripts "live"
2. Data directory – where data usually comes from and goes to

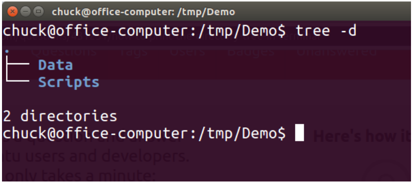
If images are created, they are considered a type of data.

Relationship of directories.

There are two directories, relative to one another, and anywhere in the file system.

- Data – where data files are usually read from or written to
- Scripts – where R scripts are executed and "sourced" from

The file and directory names are Unix case sensitive and should be safe in a Windows environment.

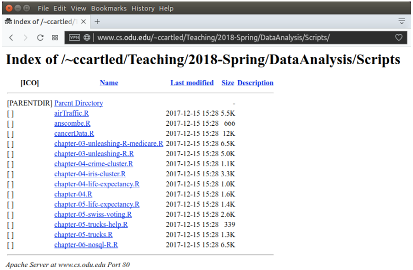


```
chuck@office-computer:/tmp/Demo$ tree -d
.
├── Data
└── Scripts

2 directories
chuck@office-computer:/tmp/Demo$ 
```

Where programs execute.

- "Base" R scripts may `source()` other script files. All files are assumed to live in the scripts directory.
- Access to data files within the R scripts is via the `file.path()` function.


File Edit View Bookmarks History Help
Index of /~ccartled/T
www.cs.odu.edu/~ccartled/Teaching/2018-Spring/DataAnalysis/Scripts/

Index of /~ccartled/Teaching/2018-Spring/DataAnalysis/Scripts

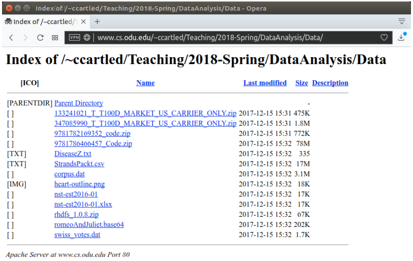
[ICO]	Name	Last modified	Size	Description
[PARENTDIR]	Parent Directory		-	
[ ]	airTraffic.R	2017-12-15 15:28	5.5K	
[ ]	anscombe.R	2017-12-15 15:28	666	
[ ]	cancerData.R	2017-12-15 15:28	12K	
[ ]	chapter-03-unleashing-R-medicare.R	2017-12-15 15:28	6.5K	
[ ]	chapter-03-unleashing-R.R	2017-12-15 15:28	5.0K	
[ ]	chapter-04-crime-cluster.R	2017-12-15 15:28	1.1K	
[ ]	chapter-04-iris-cluster.R	2017-12-15 15:28	3.3K	
[ ]	chapter-04-life-expectancy.R	2017-12-15 15:28	1.0K	
[ ]	chapter-04.R	2017-12-15 15:28	1.6K	
[ ]	chapter-05-life-expectancy.R	2017-12-15 15:28	1.4K	
[ ]	chapter-05-swiss-voting.R	2017-12-15 15:28	2.6K	
[ ]	chapter-05-trucks-help.R	2017-12-15 15:28	339	
[ ]	chapter-05-trucks.R	2017-12-15 15:28	1.3K	
[ ]	chapter-06-nosql-R.R	2017-12-15 15:28	6.5K	

Apache Server at www.cs.odu.edu Port 80

All file accesses should be Operating System agnostic.

Sometimes, things need to be persistent.

- Data files live, and die in the data directory.
- The Data directory is one “up” from the Scripts directory.
- All accesses to the data directory are via the `file.path()` function.


Index of /~ccartled/Teaching/2018-Spring/DataAnalysis/Data - Opera
Index of /~ccartled/
www.cs.odu.edu/~ccartled/Teaching/2018-Spring/DataAnalysis/Data/

Index of /~ccartled/Teaching/2018-Spring/DataAnalysis/Data

[ICO]	Name	Last modified	Size	Description
[PARENTDIR]	Parent Directory		-	
[ ]	133241021_T_T100D_MARKET_US_CARRIER_ONLY.zip	2017-12-15 15:31	475K	
[ ]	347085990_T_T100D_MARKET_US_CARRIER_ONLY.zip	2017-12-15 15:31	1.8M	
[ ]	9781782169352_code.zip	2017-12-15 15:31	772K	
[ ]	9781786466457_Code.zip	2017-12-15 15:32	78M	
[TXT]	DiseaseZ.txt	2017-12-15 15:32	335	
[TXT]	StrandsPackt.csv	2017-12-15 15:32	17M	
[ ]	corpus.dat	2017-12-15 15:32	3.1M	
[IMG]	heart-outline.png	2017-12-15 15:32	18K	
[ ]	nst-est2016-01	2017-12-15 15:32	17K	
[ ]	nst-est2016-01.xlsx	2017-12-15 15:32	17K	
[ ]	rhdfs_1.0.8.zip	2017-12-15 15:32	67K	
[ ]	romeoAndJuliet.base64	2017-12-15 15:32	202K	
[ ]	swiss_votes.dat	2017-12-15 15:32	1.7K	

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All file accesses should be Operating System agnostic.

Where temporary things live.

- There are times when data does not need to be persistent.
- Generally these data are stored wherever `tempfile()` or `tempdir()` put them.
- Be aware that data stored, either directly or indirectly using these functions may be removed when the R session completes.

All file accesses should be Operating System agnostic.