**PRACTICAL 4**

**Dataset:** Basketball data from March Madness

**Download Link:**<http://becomingvisual.com/rfundamentals/march_madness.csv>

**Data Dictionary:**

| **Variable** | **Description** |
| --- | --- |
| Rank | Team Ranking |
| Previous | Previous Team Ranking |
| School | Name of the College or University |
| Conference | NCAA Conference (30 +) |
| Record | Overall Record |
| Neutral | Record with games in a neutral location |
| Home | Record with games at home |
| Non Div I | Record with non-divison 1 games |

**Write a R script to do the following:**

1. Set working directory – Hint: setwd()

| Solution: |
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1. Import the csv file

| Solution: |
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1. View the file

| Solution: |
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1. Print number of rows and columns – Hint: dim()

| Solution: |
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1. Print columns names

| Solution: |
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1. Change column names to lowercase so it is easier to use Hint: names(df\_name) <- tolower(names(df\_name))

| Solution: |
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1. Explore the variable types. – Hint: str()

| Solution: |
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1. How many different conferences are there?

| Solution: |
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1. Let’s look at the difference in values of first two columns:
2. Compute a new vector called “diff” and calculate the difference in rank and previous
3. Print count and list of schools that changed 3 or more places Hint: create subset that satisfies criteria

| Solution: |
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1. Import the GDP dataset and compute the difference in GDP between 2007 and 2017 for each country.

| Solution: |
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