

# Assignment 0: IDS latex template

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## Latex template structure

Code and images are placed in the subdirectories code and images respectively. You can redefine graphicspath and inputpath (see above in sourcecode) to change the code and image location.

This template was made for the course introduction to data science [2].

## Exercise 1: Python example

Three different lstsets are defined for Python, Matlab and R. The only difference between them are their keywordsets and are otherwise the same.

Always refer and add captions to your code. Example python code in listing 1 and matlab code in listing 2.

```
1
2 % comment
3 print("Hello world!")
```

Listing 1: Hello World Example

```
1
2 % FizzBuzz example
3 % print numbers from 1 to 100 each on a newline,
4 % if the number is divisible by 3 or 5 print "Fizz" or "Buzz" respectively
5 % instead
6 % if divisible by 3 and 5 print "FizzBuzz" instead
7 for int = 1:100
8
9     if (mod(int,3) == 0 && mod(int,5) == 0)
10         fprintf('FizzBuzz');
11     elseif (mod(int,3) == 0)
12         fprintf('Fizz');
13     elseif (mod(int,5) == 0)
14         fprintf('Buzz');
15     else
16         fprintf('%d',int);
17     end
18
19     fprintf('\n');
20
21 end
```

Listing 2: FizzBuzz example

Group is combined with author which is somewhat clumsy.

Let me know what you think.

## 0.1 Association rule mining

### Exercise 3: R example

Figure 1 was created by the script in listing 3. The script was taken from tutorialspoint [1].

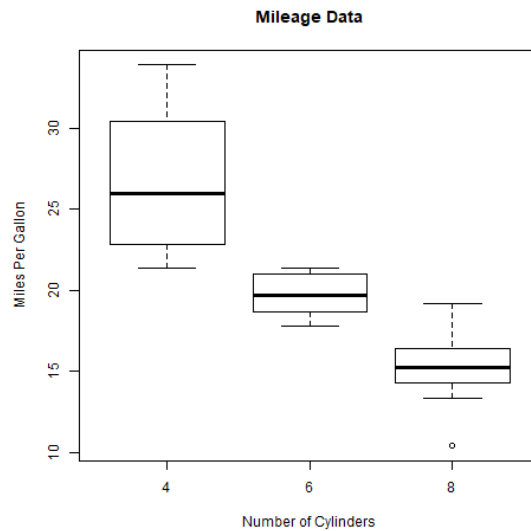


Figure 1: Boxplot example from mtcars data.

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```
1 input <- mtcars[,c('mpg','cyl')]
2 print(head(input))
3
4 # Give the chart file a name.
5 png(file = "boxplot.png")
6
7 # Plot the chart.
8 boxplot(mpg ~ cyl, data = mtcars, xlab = "Number of Cylinders",
9         ylab = "Miles Per Gallon", main = "Mileage Data")
10
11 # Save the file.
12 dev.off()
```

---

Listing 3: Boxplot example

## References

- [1] tutorialspoint boxplots. [https://www.tutorialspoint.com/r/r\\_boxplots.htm](https://www.tutorialspoint.com/r/r_boxplots.htm). Accessed: 2017-08-31.
- [2] M.F. Lungu K. Bunte. Introduction to data science, 2017.