

HW 1 - Title

Swathi Venkatesh
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Q1

You may copy the question into your report, but make sure that you make it clear where the question ends and your answer begins.

Answer

All figures must have a caption and must be referenced in the text. Example below.

Figure 1 shows the growth of population in Virginia over the period of time.

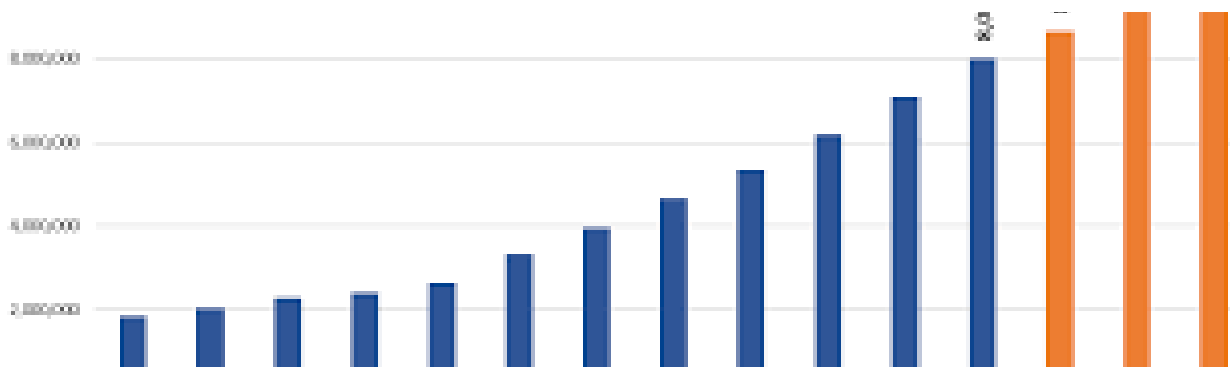


Figure 1: Population growth in Virginia

If you want to include code in your report, you can insert a screenshot (if it's legible), or you can copy/paste the code into a listings environment. There are examples below and more information is available at https://www.overleaf.com/learn/latex/code_listing.

Listing 1 is an example of directly copying code into the LaTeX document and having the listings package perform syntax highlighting. Listing 2 is an example of importing the code from a file rather than copying it in.

```
1 #!/usr/local/bin/python3
2 # Python3 program to swap elements
3 # at given positions
4
5 # Swap function
6 def swapPositions(list, pos1, pos2):
7
8     list[pos1], list[pos2] = list[pos2], list[pos1]
```

```

9     return list
10
11 # Driver function
12 List = [23, 65, 19, 90]
13 pos1, pos2 = 1, 3
14
15 print(swapPositions(List, pos1-1, pos2-1))

```

Listing 1: Python example copied into the LaTeX

```

1 #!/usr/local/bin/python3
2 # testargs.py
3
4 import sys
5
6 print("{} is the name of the script." . format(sys.argv[0]))
7 print("There are {} arguments: {}".format(len(sys.argv), str(sys.
    argv)))
8
9 for ind, arg in enumerate(sys.argv):
10     print("[{}]: {}".format(ind, arg, sys.argv[ind]))

```

Listing 2: Python sample code loaded from file

Table 1 shows a simple example table. Table 2 shows an example confusion matrix (you'll see this term later) from https://en.wikipedia.org/wiki/Confusion_matrix. This employs rows that span multiple columns (multicol) and columns that span multiple rows (multi-row).

Table 1: Simple Table

Week	Date	Topic
1	Aug 28	Introduction to Web Science and Web Architecture
2	Sep 4	Introduction to Python
3	Sep 11	Introduction to Info Vis with R, Python
4	Sep 18	Measuring the Web

Table 2: Example Confusion Matrix from Wikipedia

		Actual	
		Cat	Dog
Predicted	Cat	5 (TP)	3 (FP)
	Dog	2 (FN)	3 (TN)

Discussion

You must provide some discussion of every answer. Discuss how you arrived at the answer and the tools you used. Discuss the implications of your answer.

Q2

Answer

Discussion

Q3

Answer

Discussion

References

Every report must list the references that you consulted while completing the assignment. If you consulted a webpage, you must include the URL.

- WebSci: Web Science, <https://dl.acm.org/conference/websci>
- Journal of Web Science, https://libguides.uams.edu/find_articles/wos/
- Github, <https://github.com>