

Programming Club Meeting 8

Slides

Visual Studio Code

VS Code

- Need VS Code and Python 3 downloaded
 - Need to run without internet for competition
 - Can also easily save and open files
- Can create, open, and run files in VS Code
- To run code:
 - Save file
 - Run → Run without debugging

Code Jam Notes

Website for Code Jam

- Link:
https://www.ciu20.org/apps/pages/index.jsp?uREC_ID=1681628&type=d&pREC_ID=1836258
- Schedule:
 - 0.5 hour start
 - 3 hours of coding
 - Given packet, solve as many as possible
 - 0.5 hour awards ceremony

SCHEDULE OF EVENTS

8:30 - 9:00 a.m.

Registration and Welcome

9:00 - 11:00 a.m.

Programming Competition

11:00 - 11:30 a.m.

Awards Ceremony and Dismissal

Code Jam Rules

- Each team has 2 laptops
 - Can only use 1 at a given time
- Normally have one laptop open and coding on it, once a solution is found, bring the laptop to a judge to confirm that it works
 - While the solution is being judged, open the other to start coding
- Have scratch paper to work on other problems
 - Probably just work / pseudocode
- No use of cell phones, internet, etc.
- Can use a reference book
 - We have 2 copies of 1 from Mrs. Gabrielle
- Problems are roughly in order of difficulty

Python Cheat Sheet

Python Cheat Sheet

List Methods:

- `listName.append(var)`
- `listName.clear()`
- `newList = listName.copy()`
 - Only for python 3, remember lists are copied by reference unless you use this
- `num = listName.count(var)`
- Add list to another list:
 - `listName.extend(listToAdd)`
- `indexVal = listName.index(var)`
- `listName.insert(index, var)`
- `removedValue = listName.pop(index)`
- `listName.remove(var)`
 - Not location
- `listName.reverse()`
- `listName.sort()`

- `num = round(num, decimalPlaces)`
- `total = sum(listName)`
- `print("Val", end="")`
 - No newline at end

Misc. Features:

- `if (var in listName)`
 - Can be in list or string
- `string = string[::-1]`
 - Reverses string
- `for index, value in enumerate(listName):`
`print(index, value)`
 - Index has the index of the element, and value is the element
- `f'{7}{8}'`
 - F-string for Python 3
- `"{} {}".format(7,8)`

Split Method

Code

```
1 string = "Hello World!"  
2 lst = string.split()  
3 print(lst)
```

Output

```
['Hello', 'World!']
```


Practice Problems

Sample Problems

- Go to the GitHub and look at codeJamSampleProbs → “Code Jam Sample Probs.pdf”
- Work all together on VS Code and try to solve the 3 problems
 - Try to solve them relatively quickly
 - Try to avoid external resources, can still use reference book
 - Feel free to solve out of order, etc.
- Answers

Extra Problems From Bloomsburg

- Solve problems from “Bloomsburg Comp 18.pdf” in our normal style

Next Meeting:

- Review everything covered thus far
- Use extra time for more Bloomsburg problems

