

Programming Environment

Outline

① Programming Environment

② Working on a Project

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Linux, Mac, or Windows operating system configured with the software needed for the course



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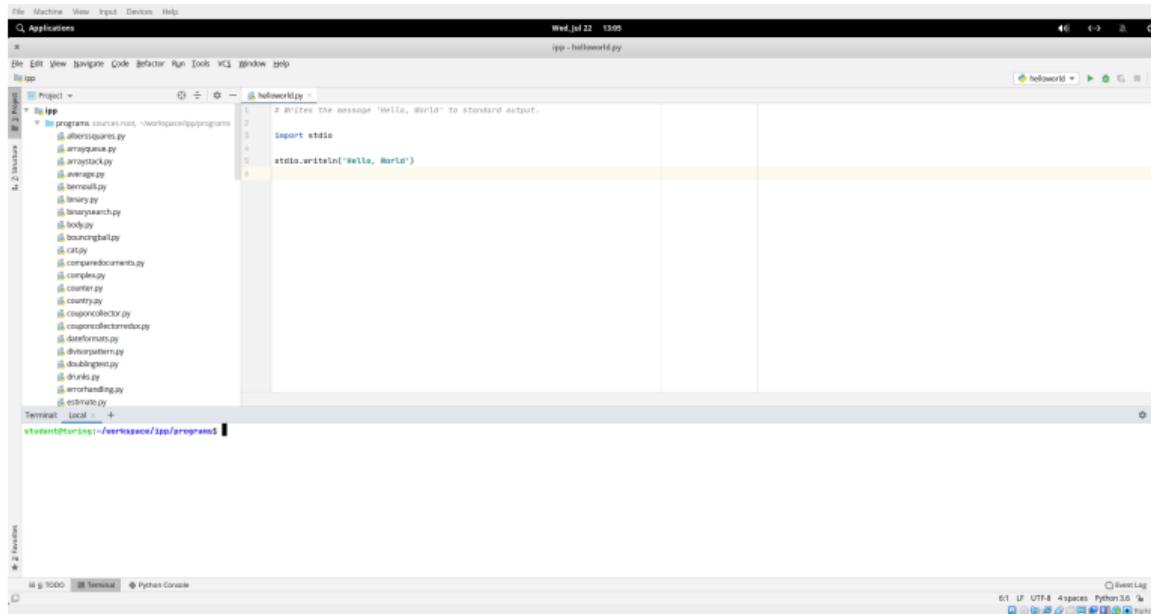


Tools we will use: web browser 🌐, PyCharm IDE 💻, terminal ☈, and file manager 📁

Programming Environment

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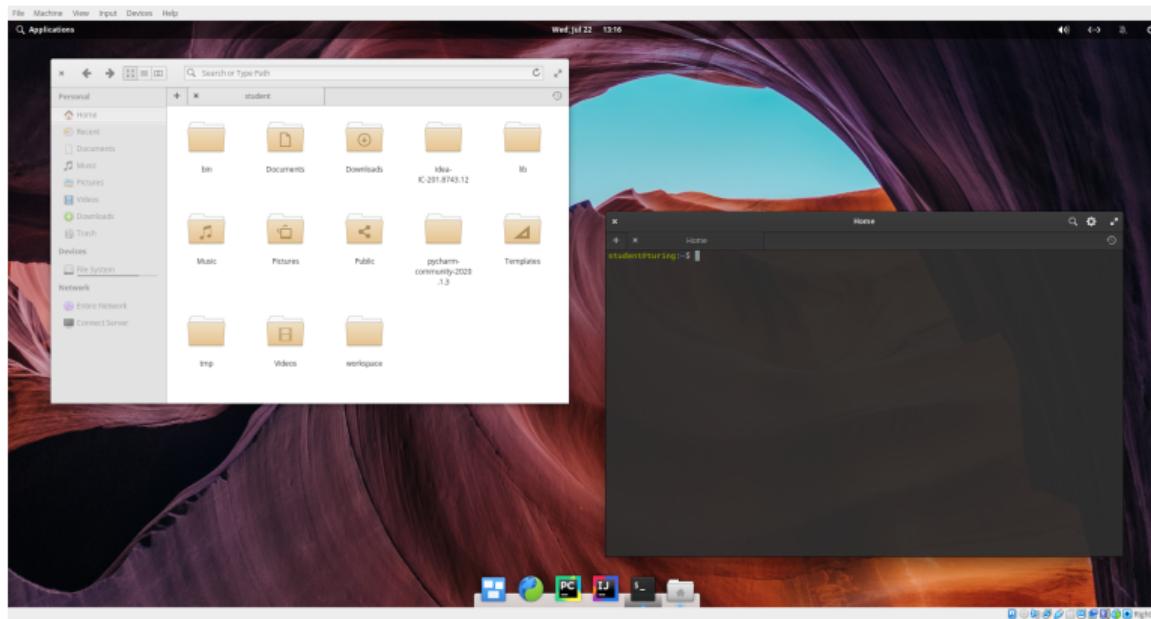
Use PyCharm IDE  to create/edit/debug/run Python programs



Programming Environment

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Use terminal  and file manager  to navigate the file system



Working on a Project

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Download `https://www.cs.umb.edu/~siyer/teaching/cs110/project1.zip` under `~/workspace` (`~` is shorthand for the user's home directory)

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Launch terminal

```
>_ ~  
$ _
```

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Launch terminal

```
>_ ~  
$ _
```

Change directory to `~/workspace`

```
>_ ~  
$ cd ~/workspace
```

Working on a Project

Download <https://www.cs.umb.edu/~siyer/teaching/cs110/project1.zip> under `~/workspace` (`~` is shorthand for the user's home directory)

Launch terminal

```
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$ _
```

Change directory to `~/workspace`

```
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$ cd ~/workspace
```

Extract the downloaded zip file

```
>_ ~/workspace  
$ unzip project1.zip
```

Working on a Project

Working on a Project

List current directory

```
>_ ~/workspace
```

```
$ ls  
project1 project1.zip
```

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List current directory

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>_ ~/workspace  
$ ls  
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Remove the zip file

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>_ ~/workspace  
$ rm project1.zip
```

Working on a Project

List current directory

```
>_ ~/workspace  
$ ls  
project1 project1.zip
```

Remove the zip file

```
>_ ~/workspace  
$ rm project1.zip
```

Exit the terminal

```
>_ ~/workspace  
$ exit
```

Working on a Project

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Open `~/workspace/project1` in PyCharm to work on the programs

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Open `~/workspace/project1` in PyCharm to work on the programs

Run a program (eg, `great_circle.py`) in the PyCharm terminal

```
>_ ~/workspace/project1  
$ python3 great_circle.py 48.87 -2.33 37.8 -122.4
```

Working on a Project

Open `~/workspace/project1` in PyCharm to work on the programs

Run a program (eg, `great_circle.py`) in the PyCharm terminal

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Check a program (eg, `great_circle.py`) for coding style in the PyCharm terminal

```
>_ ~/workspace/project1  
$ pycodestyle great_circle.py
```

Working on a Project

Open `~/workspace/project1` in PyCharm to work on the programs

Run a program (eg, `great_circle.py`) in the PyCharm terminal

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$ python3 great_circle.py 48.87 -2.33 37.8 -122.4
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Check a program (eg, `great_circle.py`) for coding style in the PyCharm terminal

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>_ ~/workspace/project1  
$ pycodestyle great_circle.py
```

Use the web browser  to sign on to Gradescope and upload the project files