Web IDE – Python3 Environment

Accessing the IDE

1. Go to: <https://repl.it/>
2. Select Python3
3. Sign-up / Create an account
4. Make sure you can remember your account information for the rest of the course.

Using the IDE

* Use the black area like a calculator to try simple statements or commands
* Use the white area to create programs with multiple statements

Level 0: Basic Math & Strings

Accessing the Tutorial

* Go to: <http://www.letslearnpython.com/learn/>
* Skip directly to “Lesson 3: Math”

Questions

1. Complete “Lesson 3: Math – Math Basics” by typing the sample commands in the black area of the IDE.
   1. Create your own expression using 5 “+” and “-“ operators.
   2. List your expression and the result below

**8+5= 13**

**5+6= 11**

**2+3= 5**

**1+1= 2**

**5+5= 10**

**5-6= -1**

**3-2= 1**

**11-5= 6**

**25-6= 19**

**1-1= 0**

1. Complete “Lesson 3: Math – More Operators” by typing the sample commands in the black area of the IDE.
   1. Create your own expression using 5 “\*” and “/” operators.
   2. List your expression and the result below.

**8\*9= 72**

**1\*1= 1**

**6\*3= 18**

**8\*5= 40**

**3\*5= 15**

**9/3= 3.0**

**6/2= 3.0**

**35/5= 7.0**

**90/25= 3.6**

**45/8= 5.625**

1. Complete “Lesson 3: Math – More Division” by typing the sample commands in the black area of the IDE.
   1. Create one division expression that gives a whole number answer
   2. And one division expression that gives a decimal number answer.
   3. List your expressions and the results below.

**20/10= 2.0**

**50/4= 12.5**

1. Complete “Lesson 3: Math – Floats” by typing the sample commands in the black area of the IDE.
   1. Use the “round()” function for the expressions you created in question #3 above.
   2. List your “round()” expressions and the results they return below.

**Round(2.0)= 2**

**Round(12.5)= 12**

1. Read through “Lesson 3: Math – Comparison Operators”.
   1. Why do you think Equals is “==” instead of “=”?

**== means equal to**

* 1. What does “=” mean?

**= means a sum**

1. Complete “Lesson 3: Math – Practice” and “Lesson 3: Math – Practice Answers” by typing the sample commands in the black area of the IDE.
   1. Create an expression using 5 different operators that returns a “True” result
   2. And an expression using 5 different operators that returns a “False” result.
   3. List your expressions and the results returned below.

**6<5+4= True**

**11<9+7= True**

**15<8+12= True**

**7<5+9= True**

**3<6+9= True**

**5<3= False**

**8<4+2= False**

**10<5+3= False**

**12<8+1= False**

**15<7= False**

1. Complete “Lesson 4: Strings – Strings” and “Lesson 4: Strings – Examples” by typing the sample commands in the black area of the IDE.
   1. Explain why typing “apple” works and why typing apple without quotes gives an error.

**Quotes initializes the command**

* 1. Also explain why “2 + 5” does not equal 7.

**Anything in a quotation repeats itself in words**

1. Complete “Lesson 4: Strings – Operators” by typing the sample commands in the black area of the IDE.
   1. Explain why typing “appl” + “e” works and why typing “apple” - “e” gives an error.

**You can add strings but you can’t subtract or remove strings**

* 1. Also explain why “Hello” \* 10 works but why “Hello” / 10 does work.

**Multiplying controls how many times we show a string so it just times the word that many times. But dividing won’t work because you can’t divide a word.**

1. Complete “Lesson 4: Strings – Indexes” by typing the sample commands in the black area of the IDE.
   1. List the letters in your first name and the index for each letter in your first name.

**‘H’+’A’+’R’+’R’+’Y’**

**0 1 2 3 4**

1. Complete “Lesson 4: Strings – Indexes Examples” by typing the sample commands in the black area of the IDE.
   1. Explain why print(“Hello!”[4]) does not print “l”.

**The first letter is 0 and I is 3 if you want to print it.**

* 1. What does print(“Hay, Bob!”[4]) print? For a hint try print(“Hay, Bob!”[3]) and print(“Hay, Bob!”[5])

**It prints B**

1. Complete “Lesson 4: Strings – Rules” by typing the sample commands in the black area of the IDE.
   1. Explain why print(“Hello!”[7]) gives an error.

**It gives an error because there are not 7 letters in the word hello.**