**Basic Python Programs using Raspberry Pi**



In this activity you will be writing several simple programs in a programming language called Python. Python although the snake is the official logo it is actually named after a British comedy group Monty Python. To write a program we will be writing out code in an editor name IDLE, in honor of Eric Idle (a member of Monty Python).

1. Double-click on the IDLE in Menu|Programming.
2. The Shell is an interactive input and output interface for the user. If you type something such as 2 + 2 and the prompt (>>>) the Python interpreter will execute it.
3. To create a program select File from the menu in the Python Shell and select New Window.
4. In this new window you will type your program code. When typing your program you should remember the following basic ideas:
   1. Python is case sensitive
   2. Indentation matters
   3. Save your files in a folder on your desktop with your name on it
   4. Save your files with a name that has some meaning but make sure the filename always ends in .py
5. Now let’s write some programs.

**#Demonstration 1**

name = raw\_input("Enter your name: ")

print "Hello " + name

**#Demonstration 2**

def starWarsName(firstName, lastName, momName, birthCity):

fName = lastName[0:3] + firstName[0:2].lower()

lName = momName[0:2] + birthCity[0:3].lower()

return fName + " " + lName

firstName = raw\_input("What is your first name? ")

lastName = raw\_input("What is your last name? ")

momName = raw\_input("What is your mom's maiden name? ")

birthCity = raw\_input("What city were you born in? ")

print "Your Star Wars name is",

printstarWarsName(firstName, lastName, momName, birthCity)

**Demonstration Program #3**

import random

secretNumber = random.randint(1, 100)

guessed = False

while not guessed:

number = input("Try to guess the secret number (1 - 100): ")

if number == secretNumber:

print "You guessed it!"

guessed = True

elif number >secretNumber:

print "Your guess was too high"

elif number <secretNumber:

print "Your guess was too low"

**#Demonstration program #4**

import random, time

def quickPick():

lottery = []

count = 0;

powerBall = False

while count < 5:

number = random.randint(1, 60)

if number not in lottery:

lottery.append(number)

count = count + 1

lottery.sort()

#generate the PowerBall

while not powerBall:

number = random.randint(1, 36)

if number not in lottery:

lottery.append(number)

powerBall = True

return lottery

lotto = quickPick()

fori in range(len(lotto) - 1):

print lotto[i],

time.sleep(1)

print

print "The PowerBall is: " + str(lotto[len(lotto)-1])