**Python Assignment – 17**

1. Assign the value 7 to the variable guess\_me. Then, write the conditional tests (if, else, and elif) to print the string 'too low' if guess\_me is less than 7, 'too high' if greater than 7, and 'just right' if equal to 7.

**Ans:** guess\_me = int(input("enter value : "))

if guess\_me == 7 :

print('Just Right')

elif guess\_me > 7 :

print("Too High")

else:

print('Too Low')

enter value : 8

Too High

2. Assign the value 7 to the variable guess\_me and the value 1 to the variable start. Write a while loop that compares start with guess\_me. Print too low if start is less than guess me. If start equals guess\_me, print 'found it!' and exit the loop. If start is greater than guess\_me, print 'oops' and exit the loop. Increment start at the end of the loop.

**Ans:** guess\_me = 7

start = 1

while True:

if start < guess\_me:

print('too low')

elif start == guess\_me:

print('found it!')

break

else:

print('oops')

break

start += 1

Output

too low

too low

too low

too low

too low

too low

found it!

3. Print the following values of the list [3, 2, 1, 0] using a for loop.

**Ans:** List = [3,2,1,0]

for i in List:

print(i)

Output

3

2

1

0

4. Use a list comprehension to make a list of the even numbers in range(10)

**Ans:** even = [item for item in range(10) if item%2==0]

even

Output

[0, 2, 4, 6, 8]

5. Use a dictionary comprehension to create the dictionary squares. Use range(10) to return the keys, and use the square of each key as its value.

**Ans:** squares = {num: num \* num for num in range(10)}

squares

Output

{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81}

6. Construct the set odd from the odd numbers in the range using a set comprehension (10).

**Ans:** odd = {item for item in range(10) if item%2==1}

odd

Output

{1, 3, 5, 7, 9}

7. Use a generator comprehension to return the string 'Got ' and a number for the numbers in range(10). Iterate through this by using a for loop?

**Ans:** string\_generator = ('Got ' + str(num) for num in range(10))

for item in string\_generator:

print(item)

Output

Got 0

Got 1

Got 2

Got 3

Got 4

Got 5

Got 6

Got 7

Got 8

Got 9

8. Define a function called good that returns the list ['Harry', 'Ron', 'Hermione'].

**Ans:** def retunList():

return ['Harry', 'Ron', 'Hermione']

retunList()

Output

['Harry', 'Ron', 'Hermione']

9. Define a generator function called get\_odds that returns the odd numbers from range(10). Use a for loop to find and print the third value returned.

**Ans:** def get\_odds():

for number in range(1, 10, 2):

yield number

count = 1

for number in get\_odds():

if count == 3:

print("The third odd number is", number)

break

count += 1

Output

The third odd number is 5

10. Define an exception called OopsException. Raise this exception to see what happens. Then write the code to catch this exception and print 'Caught an oops'.

**Ans:** class OopsException(Exception):

pass

def raiseException(num):

if num < 0:

raise OopsException(num)

try:

raiseException(-1)

except OopsException as err:

print('Caught an oops')

Output

Caught an oops

11. Use zip() to make a dictionary called movies that pairs these lists: titles = ['Creature of Habit', 'Crewel Fate'] and plots = ['A nun turns into a monster', 'A haunted yarn shop'].

**Ans:** titles = ['Creature of Habit', 'Crewel Fate']

plots = ['A nun turns into a monster', 'A haunted yarn shop']

movies = dict(zip(titles, plots))

print(movies)

Output

{'Creature of Habit': 'A nun turns into a monster', 'Crewel Fate': 'A haunted yarn shop'}

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