

SATURDAY

202-163 • WK 29

APPOINTMENT/MEETING

13 Feb Assignment:-

1. Explain why we have to use explain the exception class while creating a custom exception.

Solve:- Custom exceptions provide you the flexibility to add methods that are not part of a standard Java Exception. These can store additional information, like an application-specific error code, or provide utility methods that can be used to handle or present the exception to a user.

Q.2 Write a python program to print Python Exception Hierarchy?

Solve:- `import inspect module`
`import inspect`
`# our tree class function`
`def tree class(cls, ind = 0):`
 `print(' '*ind, cls.__name__)`
 `for i in cls.__subclasses__():`
 `tree class(i, ind+3)`
`print("Hierarchy for Built-in exceptions is :")`

2 Sunday

APPOINTMENT NOTES

Q.3 What errors are defined in the Arithmetic error class? explain any two with an example.

AUG

2	M	T	W	T	F	S	S	M	T	W	T	F	S	S
0			1	2	3	4	5	6	7	8	9	10	11	12
1	13	14	15	16	17	18	19	20	21	22	23	24	25	26
8	27	28	29	30	31									

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APPOINTMENT/MEETING

Arithmetic Error Exception is the base class for all errors that occur for numeric calculations. It is the base class for these built-in exceptions like: Overflow Error, Zero Division error, Floating Point Error.

Ex.1

```
import sys
try:
```

```
7/0
```

```
except ArithmeticError as e:
```

```
    print e
```

```
    print sys.exc_type
```

```
    print 'This is an example of catching  
ArithmeticError'
```

Ex.2

```
try:
```

```
a = 10/0
```

```
    print(a)
```

```
except ArithmeticError:
```

```
    print("This statement is raising an  
arithmetic exception!")
```

```
else:
```

```
    print("Success.")
```

APPOINTMENT NOT

Q.4 Why LookupError class is used?
explain with an example key Error
4 Index Error?

Lookup Error acts as a base class for the exceptions that occur when a key or index used on a mapping or sequence of a list/dictionary is invalid or does not exists.

Key Error:- If a key are trying to access in not found in the dictionary, a key error exception is raised

try:
a = {1:'a', 2:'b', 3:'c'}
print(a[4])
except LookupError:
print("Key Error Exception Raised")
else:
print("Success, no error!")

Index error:- when you are trying to access an index (sequence) of a list that does not exist in that list or is out of range of that list, an index error is raised.

ex:- try:
a = ['a', 'b', 'c']
print(a[4])
except LookupError:
print("Index Error Exception Raised,
List Index out of range")
else:
print("Success, no error!")

APPOINTMENT MEETING

Q.5 Explain Import Error. what is Module Not found Error?

→ Import Error occurs when the Python program tries to import module which does not exist in the private table.

→ Python throws the ModuleNotFoundError afterward. what does this error mean in Python? As the name implies, this error occurs when you are trying to access or use a module that cannot be found. In the case of the title, the "module named Python" cannot be found. Python here can be any module.

Q.6 List down some best practices for exception handling in Python.

1. Exception - Base class for all exceptions
2. StopIteration - Raised when the next() method of an iterator does not point to any object
3. SystemExit - Raised by the sys.exit() function
4. StandardError - Base class for all built-in exceptions except StopIteration & SystemExit.
5. ArithmeticError - numerical calculation.
6. ImportError - Raised when import statement fails.
7. IndexError - Raised when an index is not found in a sequence.
8. KeyError - Raised when the specified key is not found in the dictionary.

APPOINTMENT NOTES