Assignment-4

Q1. Which two operator overloading methods can you use in your classes to support iteration?

Ans: In python , there are two methods  \_\_iter\_\_  and \_\_next\_\_ can be used in classes to define an iterator to support iteration respectively. The \_\_iter\_\_ method returns an iterator object and the \_\_next\_\_ method returns the next item in the iteration.

Q2. In what contexts do the two operator overloading methods manage printing?

Ans: The two operator overloading methods for printing are ‘ostream & operator<<’ and ‘istream & operator>>’. They manage the printing of objects to an output stream (such as ‘cout’) and input from an input stream (such as ‘cin’) respectively.

Q3. In a class, how do you intercept slice operations?

Ans: To intercept slice operations in a class, you would typically implement the operator[] method. The operator[] is an overloaded operator that allows you to access elements in a container-like object using the square bracket syntax ([]). By overloading this operator in your class, you can define how slicing should be performed on objects of your class.

Q4. In a class, how do you capture in-place addition?

Ans: In a class, in-place addition can be captured by defining the \_\_iadd\_\_ magic method. This method allows you to overload the += operator for instances of your class, enabling you to perform an in-place addition.

Q5. When is it appropriate to use operator overloading?

Ans: Operator overloading is mostly useful when you're making a new class that falls into an existing "Abstract Base Class" (ABC) .