Analysis:

* we need a board
* we need two players
* we need to check if location is free in the board
* we need to mark the location with the player symbol(x and 0);
* we need to check if the players is in the boundary.

Design:

* So for we have 4 classes in order to design the game
* Class one will be Board with instance variable row and column
* Class two will be player with instance variable name
* Class three will be position with the attributes row and column
* and the last class will be the TicTacToe with the instance variable with board, (two)players

On the design part we have deferent methods for each class:

* initialize():Void--making the board
* slotIsEmpity(row,col):boolean
* marksSlot(position,symbol):void -- marks by the player symbol
* print(): void -- printing the board
* isWithInBoundery(row,col):boolean---check the position within on bounds or not...
* checkWin(position):boolean ---- this is the hardest method of the game to implement...
* hasEmpitySlot():void

Implementation:

The implementation is hard and here you go the code .....

# 1, Encapsulation is just wrapping some data in an object. the term encapsulation is often used interchangeably with information hiding, encapsulation ids of strong an object or data as a property within another object so that the outer object has full control over and by using function we can call the code.

# 2, The program stack presents a vulnerability in a computer system, one that is often exploited in a type of computer system attack known as the buffer overflow attack.

# 3, Names assigned in the interpreter shell or in a module outside of any function are said to have global scope. Their scope is the namespace associated with the shell or the whole module and variable with global scope are referred to as global variable.

# 1, The character encoding is a string object are used to store text, that is, a sequence of characters. The characters could be upper and lowercase from the alphabet, punctuation marks, and possible symbols like the dollar sign and also important for text file because the string value need to be mapped to a specific bit encoding, and this encoding should map back to the character.

# 2, In Unicode, every characters is represented by an integer code point. The code point is not necessary the actual byte representation of the character; it is just identifier for the particular character.

# 3, Pseudorandom number generators are programs that produce a sequence of number that "look" random and are good enough for most application that need a random number.

# 1, On the first day this week, we have learned multi if statement and the importance of the ordering conditions for the multi if statement. In addition to that we have learned the iteration loop pattern, the counter loop pattern and accumulator loop pattern. Moreover we seen the two dimensional list and nested loop.

1.Encapsulation is just wrapping some data in an object .the term “encapsulation is often used interchangeably with information hiding” encapsulation is of storing an object or data as a property within another object so that the outer object has full control over and by using function we can recall the code.  
2. The program stack also presents vulnerability in a computer system one that is often exploited in a type of computer system attack known as the buffer overflow attack.  
3 Names assigned in the interpreter shell or in a module outside of any function are said to have global scope. Their scope is the namespace associated with the shell or the whole module. Variable with global scope are referred to as global variables. Once we define a function if we call that function we can use the local variable of that as global. Because of confusion which is hard to correct under the global one.

Introduction to Computing Using Python

Unicode

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code point

.

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# 2, On the second day of this week, we have learned the additional iteration pattern in while loop, the most fundamental loop, and several common pattern for its usage. And also we have learned about break(stop) and continue(skip) statement which give us more control over the iteration process. Moreover, we have seen about sequence loop pattern, infinite loop pattern and loop-and-a-half pattern.

# 3, On the fourth day of this week, we have learned the importance of dictionary, which holds key and value. And also we have seen the tuples which is similar to list but tuples are immutable as compared to list and about set as it like mathematical sets but they cannot contain duplication and do not maintain order.

# 4, On the fifth day of the we have learned about characters and randomness, which includes character encoding, that means each character, is plotted to an exact bit encoding, and this encoding goes to the character. We also learned about Unicode that every character is represented by an integer code point but that code point should not be byte representation of the character in essence. Moreover, we have learned about randomness that can generate object by using standard library module called random.

# 5, When we relate the science of conciseness with our course material, one of the 16th principle of science of creativity intelligence the nature of life to grow, we can relate directly with accumulator loop pattern, which will accumulate things, which means the accumulator will grow as the nature of life to grow.

On day five we learned about Characters and Randomness, which includes Character encoding i.e. each character, is plotted to an exact bit encoding, and this encoding goes to the character. We also taught about Unicode that every character is represented by an integer code point but that code point should not be byte representation of the character in essence. And we can write strings with different language using Unicode. We also can compare numbers using Unicode representations, and we taught about randomness that we can generate objects by using Standard Library module called random.

# 2, The order is very important in 3 or more way if statement, otherwise when we write a program the order (sequence) of the program is disordered, it will print wrong output, so the order of the program have to be in the proper order to run the program without any mistake.

# 3, The nested loop pattern used to implement two dimensional lists the first for loop will check the row index and the second one will check the columns index of the lists.

1. They are called view objects because they are the method which function is to display any information about the object or dictionary the function keys () display the key which is the index that access the value () and items () is the function which display the key() and value() .the whole function of the function is to provide dynamic view of the dictionary keys value and key pairs.  
2. Name=(‘dani’,)  
3. Num=set()

Also read Sections 6.1, and 6.2 and answer the following questions:

1) Explain why the objects returned by the methods keys(), values() and items() on a dictionary are called view objects

2) What is the syntax for creating a tuple with a single item?

3) What is the syntax for creating an empty set?

# 1, The triple quotes used when the string is to represent multiline text, it will allow us multiple text in one string.

I did the first five exercises, which means starting from 6.11 to 6.15.

# 1, The items () is a function which display the value() and key() and the method key() display the index that access the value(). The function is to provide dynamic view of the dictionary key value and key pairs.

# 2, Teddy=('Sima',)

# 3, T=set()

# 2, The difference between write mode w and write mode a is the write mode w is a writing mode, if the file already exists, its content is wiped and the write mode a is appended mode, writes are appended to the end of the file.

# 3, The epoch starts at 00:00:00 of January, 1, 1970, Greenwich time.

Please let me know which exercises / problems you have solved from the book. Please note that from now on, reporting which exercises you've done will count for half of the points.

Also read Sections 5.1, 5.2, and 5.3 and answer the following questions:

1) Explain what what the pass statement does (this is a question from section 4.4)

2) Explain why the order is important in a 3 (or more) way if statement

3) Explain a nested loop is required to print a two dimensional list

Also read Sections 4.3, 4.4, and 4.5 and answer the following questions:

1) Explain what triple quote strings are (this is a question from section 4.1)

In a string value a delimiters defined in a single line, if the strings is to represent multiline text it allow us the multiple text in one string.

2) Explain what the difference is between write mode w and write mode a

W is one of the mode that refers writing mode which that if the file already exists its content is wiped, also a is a append mode writes are append to the end of the file.

3) When did the epoch (time) start for computers?

The epoch starts at 00:00:00 of January, 1, 1970, Greenwich time

Explain what the difference is between write mode w and write mode a

# 1, Computer science is a discipline that spans theory and practice. It requires thinking both in abstract terms and in concrete terms. CS can be also defined as the study of the theoretical foundation of information and computation and their practical implementation on computer systems.

# 2, A software library is a suite of data and programming code that is used to develop software program and application. It is designed to assist both the programmer and the programming language compiler in building and executing software. In addition to that its separate from the core language and they must be explicitly imported into a program in order to be used.

# 3, Computational Thinking is a term to describe the intellectual approach through which natural or artificial processes or tasks are understood and described as computational processes.

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A software library is a suite of data and programming code that is used to develop software programs and applications. It is designed to assist both the programmer and the programming language [compiler](http://www.techopedia.com/definition/3828/software-library) in building and executing software.

This is the last review writing exercise. You will be asked to write 5 paragraphs.

Start by writing a summary paragraph for each of the last 3 weeks of the course (3 paragraphs).

Then connect the material from this course to the Science of Consciousness -- the important part here is that there is a clear and significant connection (1 paragraph)

# 1, On the first week of this block, we have learned several tools of pythons and about object, classes, data type as well as python standard library as we can call function from the library, wherein the python program as a sequence of statements that is executed in order. In addition to that we have learned the mutability and the ability of objects to be able to mutable, while some objects can change their content mutable and the other are not mutable whether an object is mutable or not has important implication. And also we saw variety of method that give python powerful text processing capabilities and that allow us to create formatted output. Moreover, we have learned about the file and how file system works or processes a file which include opening, reading or writing and closing.

# 2, On the second week of the block, we have learned multi if statement and the importance of the ordering conditions for the multi if statement and also the iteration loop pattern, the counter loop patter and accumulator loop pattern wherein, the additional iteration pattern in while loop, the most fundamental loop and several common pattern for its usage. In addition to that we have learned the importance of dictionary, which holds key and value, the tuples which is similar to list but tuples are immutable compared to list. Moreover, we have seen about characters and randomness, which includes character encoding, that means each character, is plotted to an exact bit encoding and this encoding goes to the character.

# 3, On the third week of the block, we have learned about the namespace and the purpose of the function which are code reuse, modularity and the encapsulation. In addition to that we were learning about namespaces and how to use different functions under a given namespace, encapsulation of variables, scopes of functions and variables, how to control the flow of data in a stack frame. And also we were taught about recursive functions and their use, how to create them, and the importance of base case and a condition for making stop the function to call itself under the topic of recursion, and how to think recursively. The other thing we learned was how modules and classes are created in relation with namespaces and stalk frames.

# 4, When we relate the science of conciseness with our course material, one of the 16th principle of science of creativity intelligence the nature of life to grow, we can relate directly with accumulator loop pattern, which will accumulate things, which means the accumulator will grow as the nature of life to grow. In addition to that I can mention another principle of science of creativity intelligence the nature of life to grow which is related to List because when you put something on the list it will grow. And also do less accomplish more when we related this to our course material in python when we do programming, we can say we do less as compared to the result.

# 5, From this courses I have learned different tools of python, in order to manipulate the program(the code), the several tools of python like the objects, classes, data type and I can be able to call a function from python standard library in order to simplify the program to be simple and clear for the viewer as well as

Then reflect on what you have learned, how you have grown, your own growth of consciousness in this course (1 paragraph)