Week one assignment -MK

The differences between interpreter and compiler but the basic work for both of them is to translate a high level language into a language that computers understand with is machine cade base of binary

Interpreter	Compiler
Translates program one statement at a time.	Scans the entire program and translates it as a whole into machine code.
It takes less amount of time to analyze the source code but the overall execution time is slower.	It takes large amount of time to analyze the source code but the overall execution time is comparatively faster.
No intermediate object code is generated, hence are memory efficient.	Generates intermediate object code which further requires linking, hence requires more memory.
Continues translating the program until the first error is met, in which case it stops. Hence debugging is easy.	It generates the error message only after scanning the whole program. Hence debugging is comparatively hard.
Programming language like Python, Ruby use interpreters.	Programming language like C, C++ use compilers.

The differences between Python 2 and Python 3 ?

First of all: the in python2 the strings are stored in ASC11 code but in 3 are stored as Unicode

Second: the print statement in 3 changed into () means not direct print statement

Third: the python 2 is faster than 3 especially for the rang() function and it was X range() in 2 and became range in 3

Fourth: the handling of exceptions has slightly changed in Python 3. In Python 3 we have to use the “as” keyword now

AISC11 and UTF-8 ?

AISC11 is abbreviated from American Standard Code for Information Interchange, is a character encoding standard for electronic communication

The character code

- All uppercase come before lowercase letters; for example, "Z" precedes "a"
- Digits and many punctuation marks come before letters

An intermediate order convert’s uppercase letters to lowercase before comparing ASCII values.

ASCII reserves the first 32 codes (numbers 0–31 decimal) for control characters: codes originally intended not to represent printable information, but rather to control devices (such as printers) that make use of ASCII, letters start form A as 65 to Z as 90 in decimal coding

The UTF-8?

UTF-8 is a compromise character encoding that can be as compact as ASCII (if the file is just plain English text) but can also contain any Unicode characters (with some increase in file size).

UTF stands for Unicode Transformation Format. The '8' means it uses 8-bit blocks to represent a character. The number of blocks needed to represent a character varies from 1 to 4.

One of the really nice features of UTF-8 is that it is compatible with null-terminated strings. No character will have a null (0) byte when encoded. This means that C code that deals with char[] will "just work".