Assignment 1 C Language Live Community Classes

1. Binary is a language that uses 1s and 0s to perform everything. Computers are non-living dumb machines so they can’t speak human languages like Hindi or English. Computers are electronic devices. The need electricity to operate. When electricity is present it is represented as 1, when electricity is absent it is represented as 0. So, they only understand binary language because electricity is required to run the circuits.
2. The full form of IDE is Integrated Development Environment. Some examples of IDE are Android Studio which is used to male android apps, eclipse is another IDE that is used for Java EE, Codeblocks is an IDE that is used for C and C++ programs.
3. IDEs are dedicated to one particular language or software whereas code editors can be used to implement various languages. For example, in Notepad, which is a code editor, one can code HTML and Java but in Eclipse, which is an IDE, one can only write Java code. However, there are some Text editors which can now be used as IDE as well by running some extensions. Visual Studio Code by Microsoft is a code editor which can be used as IDE as well.
4. A code written in C-language is known as a source file. Operating Systems understands .exe files and not .c files. To convert a .c file into .exe we run a software that is known as preprocessor. A preprocessor mixes the contents of header files into our program and then creates a new file. This new file is same as C file except it doesn’t contain any #include statements. These statements are removed by preprocessor. #include<stdio.h> is a command that tells to include all the functionalities of <stdio.h> to our program. Now we have to translate this newly created file using compiler. A compiler translates a program and creates a new file that is known as object file. This object file depends on a particular operating system. The extension of this file is .obj. Now we require library files. This is because object file contains some code that won’t be understood by the operating system and their meaning is stored in library files. We use another software called as linker to link the object file and library file. Linker will create a new file by combining library file and object file which is known as .exe file.
5. a. The latest version of C is C-17 which was released in June 2018.

b. C language was developed by Ken Thompson and Dennis Ritchie in 1972 at bell labs.

c. System software is used by operating system e.g., firmware. Application software is utilized by the user e.g., MS Word.

d. To convert a decimal number to binary, divide the number by two and write its quotient, keep doing it until you get 0. When quotient is 0 calculate the binary equivalent.