**Difference between Console Application, Client-server Programming Application, Web based application, Enterprise Application**

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| **Console Application** | **Client-server Programming Application** | **Web based Application** | **Enterprise Application** |
| A console application in the context of c#, is an application that takes input and displays output at a command line console with access to three basic data streams: standard input, standard output and standard error. ... It is the simplest form of a c# program and is typically invoked from the Window and prompt. | A client/server application is a piece of software that runs on a client computer and makes requests to a remote server. Many such application are written in high-level visual programming languages where UI, forms, and most business logic reside in the client appliction. | A web-based application is any program that is accessed over a network connection using HTTP, rather than existing within a device's memory. Web based applications often run inside a web browser. | Enterprise application are a software solution that provide business logic and tools to model entire business processes for organisations to improve productivity and efficiency. |
| **Examples:**  **Bank ATM, device with a very small display** | **Examples:**  **Email,networking printing,world wide web** | **Examples:**  **Online forms,shopping carts.** | **Examples include billing systems, customer relationship management systems and supplier relationship management system**s. |

**SDLC Lifecycle**

1.requirement gathering

2.analysis

3.design

4.coding

5. testing

6.deployment

**Library management**

**System requirements:** Any library member should be able to search books by their title, author, subject category as well by the publication date. There could be more than one copy of a book, and library members should be able to check-out and reserve any copy. We will call each copy of a book, a book item.

**Analysis:** All the library data is computerized and is used to tack details of books like issues and return dates.Intial and feasibility study is done

**Design**: Creating a flow chart or uml diagram which will show the basic flow of the application about where to start with a step by step process. Database creation, logical design and construction is done

**Coding**: Writing a java code for the required application

**Testing**: This phase includes System testing,Software testing

**Deployment**: after all the testing is done the application is ready to use.