

Assignment-1

Module -1 Overview of it industry

➤ Write a simple “hello world” program in two different programming language of your choice. Compare the structure and syntax.

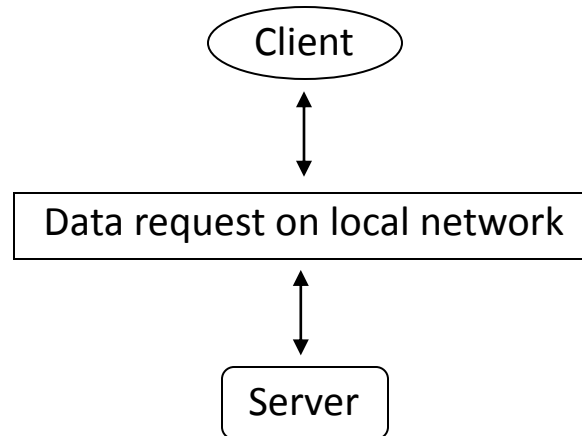
- Option -1:

```
<html>
<title>
<head> title file </head>
</title>
<body>
<h1> “hello world” </h1>
</body>
</html>
```

- Option -2:

```
#include <stdio.h>
Int main()
{
Printf (“hello world”);
Return 0;
}
```

- Research and create a diagram of how data is transmitted from a client to a server over the internet.



- Design a simple HTTP client-server communication in any language.
 - not know
- Research a different types of internet connections and list their pros and cons.

Type	Pros	Cons
Broadband	-portable -convenient	-data limit -speed depends on weather
Satellite	-it is useful when other options are unavailable.	-Expensive -network depends on weather.
Cable	-Fast speed -easy to use	-affected by cable TV -speed depends on no. of users.
Wireless	-access from anywhere	-speed limit 5 to 20 mbps -depends on location

Fiber optic	-high speed & high bandwidth -low latency	-not available in all places -costly to install
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➤ Simulate HTTP and FTP request using command line tools.

- Not know

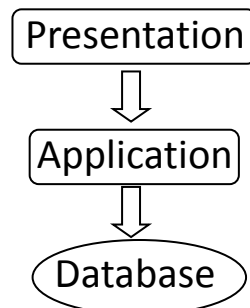
➤ Identify and explain three common application security vulnerabilities. Suggest possible solution.

- Not know

➤ Identify and classify 5 applications you use daily as either system software or application software.

- Windows
- Auto cad
- Photo shop
- MS word
- VS Code

➤ Design a basic three tire software architecture diagram for a web application.



- Create a case study on the functionality of the presentation, business logic and data access layers of a given software system.
- Explore different type of software environment set up a basic environment in a virtual machine.
- Write and upload your first source file to Github.
 - Done
- Create a Github repository and document how to commit and push code change.
 - First one is done.
 - Second don't know.
- Create a student account on Github and collaborate on a small project with a classmate.
 - Done
- Create a list of software you use regularly and classify them into the following categories: system, application, and utility software.
 - System software : operating system
 - Application software : MS office, net browser, music
 - Utility software : antivirus, c cleaner
- Follow a GIT tutorial to practice cloning, branching, and merging repositories.

➤ Write a report on the various types of application software and how they improve productivity.

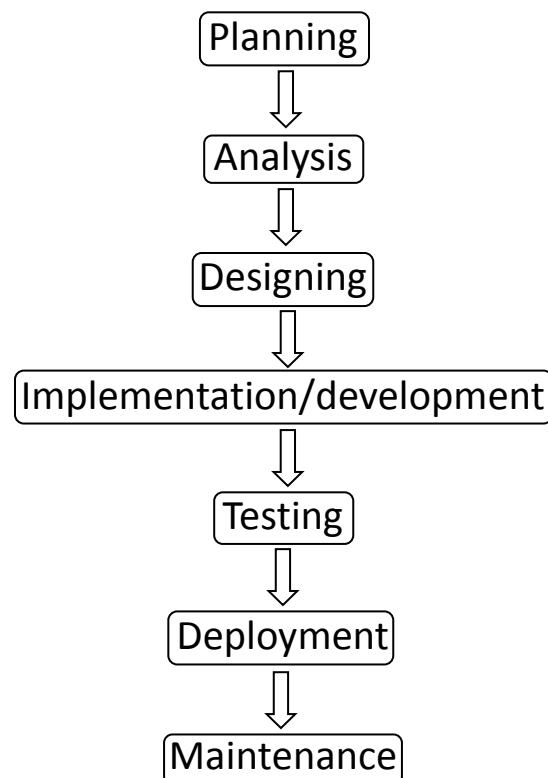
- Types of Application software:

- Spreadsheet
- Web browser
- Graphics software
- Multimedia
- Education software

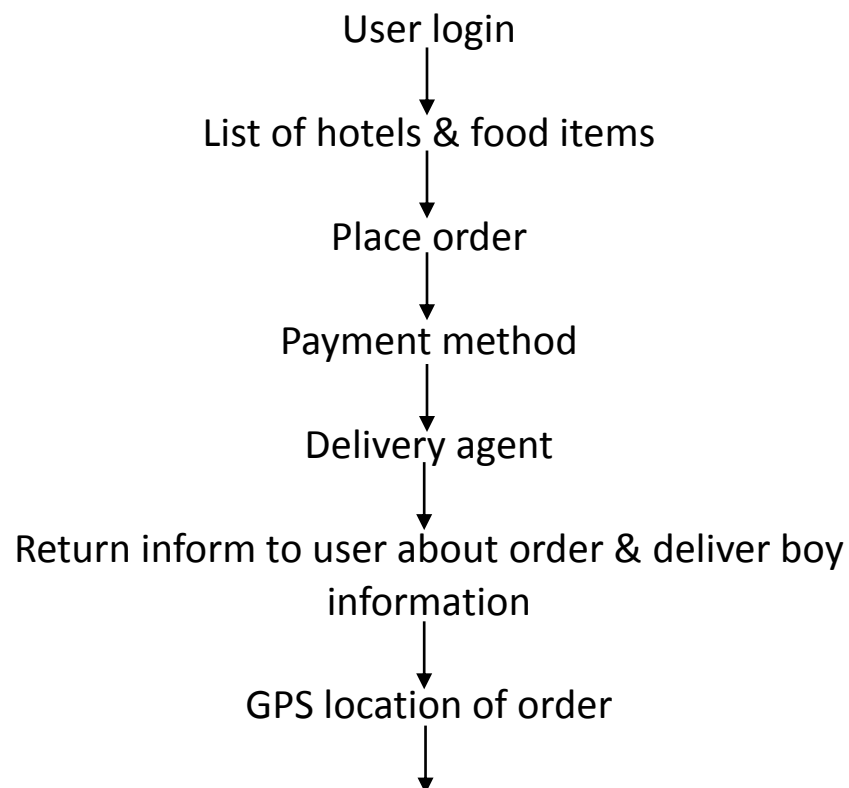
- Points given below to improve productivity:

- Continue observe the user feedback.
- Time to time update the software with the new feature.
- Mange the data of a software.
- Make to easy to use.
- Make changes to work fast.

➤ Create a flowchart representing the Software Development Life Cycle (SDLC).

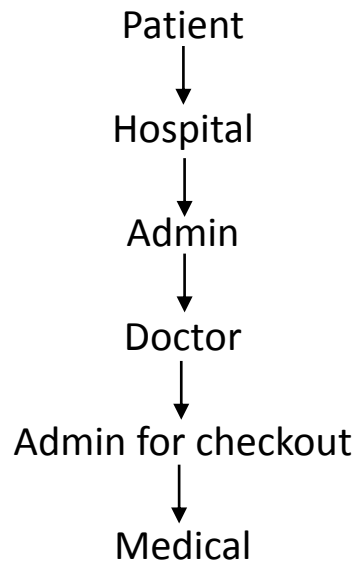


- Write a requirement specification for a simple library management system.
 - User registration system
 - Simple search option for book by it's title or author
 - Issue & return function
 - Book details management system
- Perform a functional analysis for an online shopping system.
 - User login
 - Product search
 - Adding items in cart
 - Checkout process
 - Payment process
 - Tracking system
 - Account management
 - Customer support
- Design a basic system architecture for a food delivery app.



Feed back of all process

- Develop test cases for a simple calculator program.
 - Don't know
- Document a real-world case where a software application required critical maintenance.
- Create a DFD for a hospital management system.



- Build a simple desktop calculator application using a GUI library.
 - Don't know.

- Draw a flowchart representing the logic of a basic online registration system.

