LAB EXERCISE: Research different types of internet connections (e.g., broadband, fiber, satellite)and list their pros and cons.

1. Broadband (Cable)

- What it is: Uses cables (like those for TV) to connect to the internet.
- Good Points:
    - Fast speeds (can be very quick).
    - Available in most cities and towns.
    - Great for watching videos and playing games.
- Bad Points:
    - Can slow down when many people are online at the same time.
    - Sometimes you need a cable TV subscription.

2. Fiber Optic

- What it is: Uses thin glass wires to send data as light.
- Good Points:
    - Super-fast speeds (even faster than cable).
    - Works well even when lots of people are online.
    - Very reliable and doesn't lose quality over long distances.
- Bad Points:
    - Not available everywhere, especially in the countryside.
    - Can be more expensive.

3. DSL (Digital Subscriber Line)

- What it is: Uses regular phone lines to connect to the internet.
- Good Points:
    - Available in many places, even rural areas.
    - Usually cheaper than cable and fiber.
- Bad Points:
    - Slower speeds compared to cable and fiber.
    - Speed gets worse the farther you are from the provider.

4. Satellite

- What it is: Uses satellites in space to connect to the internet.
- Good Points:
    - Works almost anywhere, even in remote areas.
    - Good option if other types aren't available.
- Bad Points:
    - Slower speeds than cable and fiber.
    - Can be affected by bad weather (like rain or snow).

5. Mobile (4G/5G)

- What it is: Uses cell phone networks to connect to the internet.
- Good Points:
    - Very portable; you can use it on your phone or a hotspot anywhere there's cell service.
    - 5G is super fast!
- Bad Points:
    - Data limits (you might run out of data and have to pay more).
    - Coverage can be spotty in some areas.

LAB EXERCISE: Identify and classify 5 applications you use daily as either system software orapplication software.

WhatsApp	(Application software)
Android	(System Software) A mobile operating system developed by Google, used on many smartphones and tablets.
Spotify	(Application software) A music streaming application.
Adobe Photoshop	(Application software) An image editing software for photos and graphic designing.
iOS	(System Software) Created by Apple for its iPhone and iPad devices.
Canva	(Application software) A graphic design platform that allows users to create social media graphics, presentations and posters.

LAB EXERCISE: Create a list of software you use regularly and classify them into the following categories: system, application, and utility software.

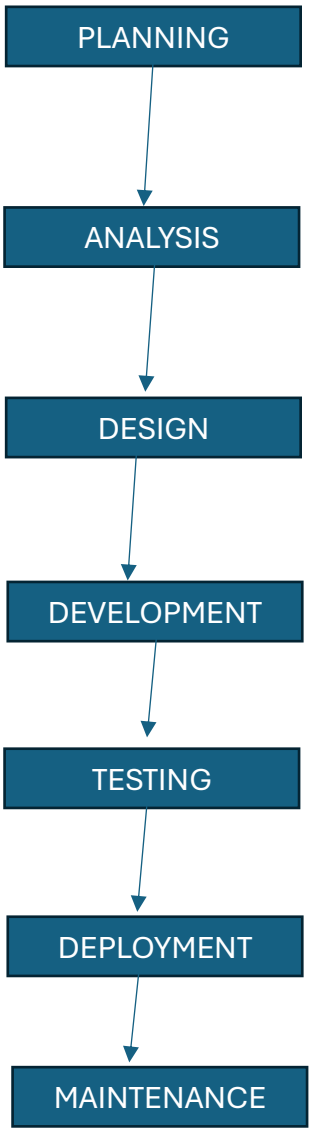
1. **System Software's:**
    - Microsoft Windows
    - macOS
    - Linux,
    - Android
    - iOS
2. **Application Software's:**

- Microsoft Office Suite
- Google Chrome
- Adobe Acrobat Reader
- Spotify
- Zoom
- WhatsApp
- Slack
- Canva

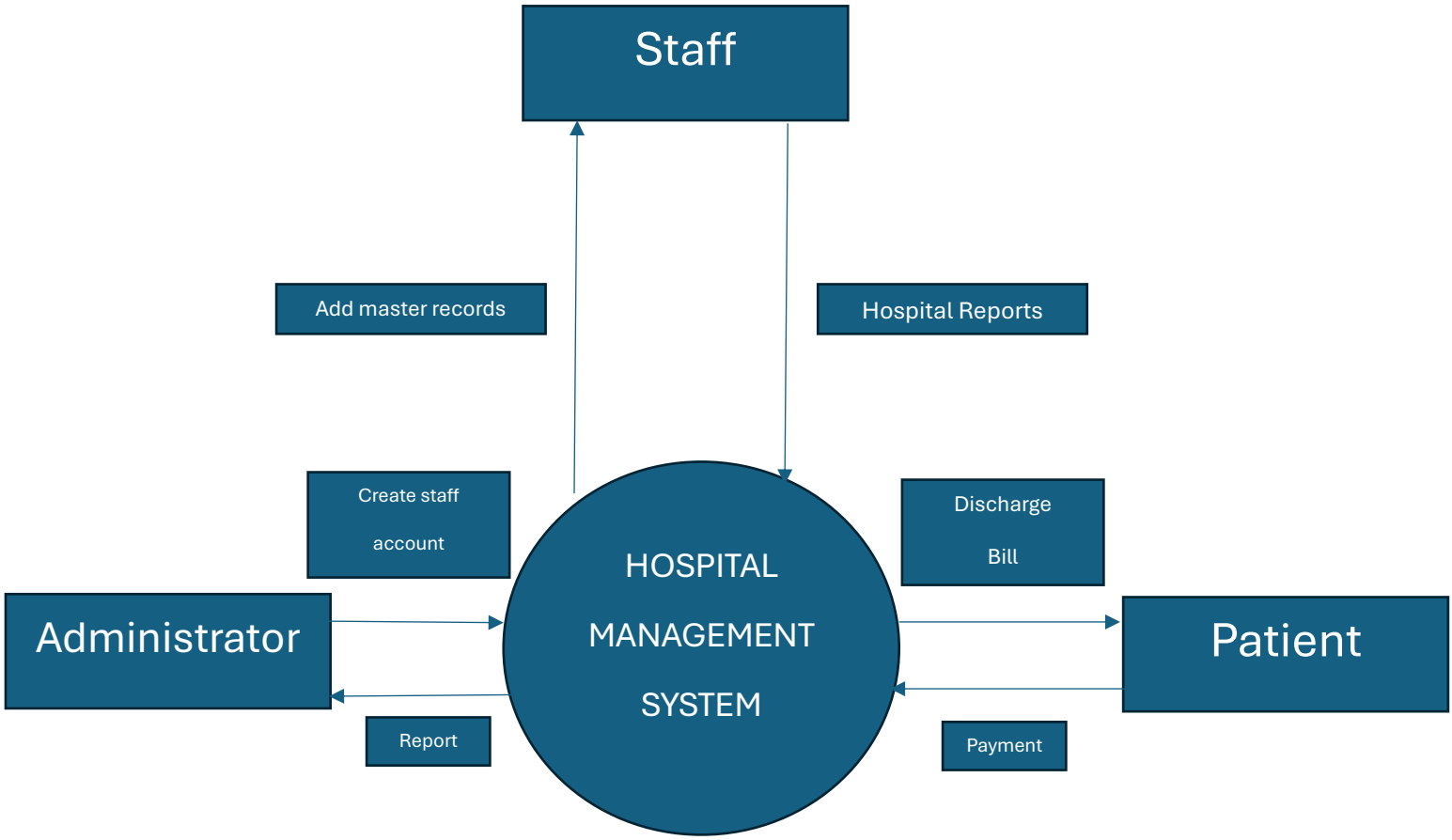
3. **Utility Software's:**

- Antivirus Software (e.g., Norton, McAfee)
- Disk Cleanup Tools
- File Compression Software (e.g., WinRAR)
- Backup Software (e.g., Backblaze)
- System Monitoring Tools

LAB EXERCISE: Create a flowchart representing the Software Development Life Cycle (SDLC).



LAB EXERCISE: Create a DFD for a hospital management system.



LAB EXERCISE: Draw a flowchart representing the logic of a basic online registration system.