**6. Deployment Phase**

The **Deployment Phase** marks the transition of the **Image Gallery with Filters** from the development environment to a live or production environment where end-users can access and interact with the system. This phase involves selecting a hosting platform, uploading all project files, performing final checks, and ensuring the application is accessible and functioning properly online.

**1. Objectives of Deployment:**

* Make the image gallery accessible to users through a web browser.
* Ensure the application runs smoothly in the production environment.
* Finalize configurations and test the live version before public access.

**2. Pre-Deployment Checklist:**

* Verified that all code files are finalized and error-free.
* Ensured all images are optimized for web usage to improve loading speed.
* Confirmed responsive design and cross-browser compatibility.
* Minified CSS and JavaScript files for performance.
* Removed unused files, test data, or placeholder content.

**3. Hosting Platform:**

* Chose a suitable web hosting platform (e.g., **GitHub Pages**, **Netlify**, **Firebase**, or **custom hosting**).
* Configured hosting settings such as domain name, file path structure, and homepage redirection.

**4. Steps Followed in Deployment:**

**Project Build Preparation:**

* Finalized the HTML, CSS, and JavaScript files.
* Structured files in folders (/images, /css, /js) for clean navigation.

**File Upload:**

* Uploaded all files to the selected hosting platform.
* Ensured proper linking of stylesheets and scripts.

**Testing on Live Environment:**

* Performed final testing on the live site to confirm that filtering works correctly.
* Verified responsive behavior, image rendering, and performance.

**Bug Fixes Post Deployment:**

* Fixed any layout or loading issues discovered after going live.
* Updated links and image paths if required.

1. **Post-Deployment Activities:**

* Collected user feedback for further improvement.
* Monitored performance and functionality using browser tools or analytics platforms.
* Made backups of the deployed version for safety and future updates.

**6. Deployment Outcome:**

* The **Image Gallery with Filters** was successfully deployed.
* The system is now accessible online, fully functional, and optimized for end-users.
* Users can interact with the gallery, apply filters, and navigate seamlessly across devices.

This phase concludes the development cycle by making the application available to users, setting the stage for real-world interaction and potential enhancements in the future.