**Phase 7-> Maintenance**

The **Maintenance** phase is essential to ensure that the SkyLens weather application remains functional, accurate, and aligned with evolving user needs. Once the application is live, maintenance provides ongoing support through performance monitoring, bug fixes, data updates, and feature enhancements.

**Monitoring and Bug Fixes**

After deployment, the application is continuously monitored for any performance issues such as slow loading, broken links, or failed API calls. Any reported bugs—such as incorrect weather displays or layout inconsistencies—are quickly diagnosed and resolved. Regular reviews help identify hidden issues that may not have appeared during the initial testing phase.

User feedback also plays a critical role in identifying usability problems. Based on this input, the development team can make targeted adjustments to improve the user experience.

**Updating Weather Data**

Because SkyLens relies on real-time weather and moon phase data, it’s crucial to maintain up-to-date API integrations. If a weather API provider changes its format or discontinues services, the corresponding JavaScript code must be updated. Ensuring consistent and accurate data flow is a key part of ongoing maintenance.

Additionally, regular checks are conducted to confirm that external APIs (e.g., for moon phases or weather alerts) continue functioning correctly and delivering accurate information.

**Adding New Features**

To keep SkyLens relevant and competitive, new features may be added based on user demand. Possible future additions could include hourly forecasts, radar maps, or user-specific weather alerts. These enhancements require updates to both the front-end files and any backend logic if introduced.

**Files Categorized**

All files—projectfinal.html, searchfinal.html, alertsfinal.html, moonfinal.html, and tendayfinal.html—are subject to regular maintenance. Whether it’s a minor layout adjustment, bug fix, or data logic update, each file is kept up to date to ensure the application remains reliable and user-friendly.