

## **RedTitan's Software Development Life Cycle (SDLC)**

**Last reviewed May 2023**

The aim at RedTitan is to supply quality software that is well engineered and tested. We go through a number of steps to ensure this happens.

### **Preliminary analysis**

At RedTitan we conduct with a preliminary analysis, consider alternative solutions, estimate costs and benefits, and submit a preliminary plan to management with recommendations.

- Conduct preliminary analysis: Identify RedTitan's objectives and define the nature and scope of the project. Ensure that the project fits with the objectives.
- Consider alternative solutions: Alternatives may come from interviewing employees, clients, suppliers, and consultants, as well as competitive analysis.
- Cost-benefit analysis: Analyse the costs and benefits of the project.

### **Systems analysis, requirements definition**

We look at decomposing the project goals into defined functions and operations. This involves gathering and interpreting facts, diagnosing problems, and recommending changes. Analyse end-user information needs and resolve inconsistencies and incompleteness:

- Collect facts: Obtain end-user requirements by document review, client interviews, observation, and questionnaires.
- Scrutinise existing system(s): Identify pros and cons.
- Analyse the proposed system: Find solutions to issues and prepare specifications, incorporating appropriate user proposals.

### **Systems design**

At this step, we look at the desired features and operations, including screen layouts, business rules, process diagrams, pseudocode, and other deliverables.

### **Development**

At this stage we write the code that will form the solution we pause in stages to ensure the code is meeting the objectives defined in the systems design stage.

## **Integration and testing**

Assemble the modules in a testing environment. Check for errors, bugs, and interoperability. Check for security vulnerabilities.

## **Acceptance, installation, deployment**

Users are informed of a new version at this stage with the option to take an upgrade if this is an enhancement to an existing product.

Put the system into pre-production. This may involve training users, deploying hardware, and loading information from the prior system before committing to production.

## **Maintenance**

Monitor the system to assess its ongoing fitness based on customer feedback. Make modest changes and fixes as needed.

## **Evaluation**

The system and the process are reviewed. Relevant questions include whether the newly implemented system meets requirements and achieves project goals, whether the system is usable, reliable/available, properly scaled and fault-tolerant. Process checks include review of timelines and expenses, as well as user acceptance.

## **Disposal**

At end of life, plans are developed for discontinuing the system and transitioning to its replacement. Related information and infrastructure must be repurposed, archived, discarded, or destroyed, while appropriately protecting security.