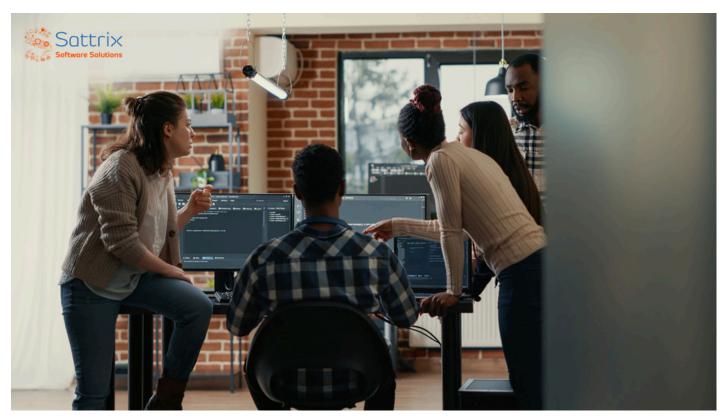


# 9 Common Challenges in the Software Development Process



Software indeed automates processes and makes life easier. However, those who have ever become a part of software development know very well how cumbersome the process of software development can get.

Learn more: Software Product Development: The Definitive Guide

In several cases, the output is different from what was initially envisioned. Besides, ensuring that the software gets developed within a given timeframe and budget is a strenuous task for project managers.

<u>Software development companies in the USA</u> have been experimenting with project management tools, training materials, and flexible methodologies to make the custom software development process easy and hassle-free. However, despite spending millions of dollars on software management, the result is seldom unsatisfactory.

Harvard Business Review conducted an interesting study on software development projects, and the statistics were shocking. It suggested that about 16% of software development

projects faced cost overruns as massive as 200%. In addition, more than 70% of projects ran behind the stipulated timelines.

We have identified the most common challenges in the software development process and provided tips on how to overcome them.

# 1. Problem: Requirement creeps

This is the most common challenge faced by project managers and developers. The client keeps coming up with new requirements throughout the project lifecycle.

For example, the client initially asks for seven features and then increases to ten or twelve features. The reason is that most clients do not have a clear idea of what they want.

#### **Solution:**

- Engage with clients during the planning phase.
- Understand the exact requirements and expectations.
- Allocate resources accordingly.
- Placing the right person in the right job is crucial for project success.
- Accurately draft terms and conditions of the project.

# 2. Problem: Communication Gap

Most times communication gap is the biggest reason behind the delay. Therefore, the project manager should ensure that the software development company maintains complete transparency.

A survey conducted by Deloitte revealed that 32% of professionals felt that the project was delayed due to a lack of communication or miscommunication.

This adversely affects the performance of project teams and causes internal conflicts.

### **Solution:**

- Use effective project management software.
- Try to keep all the members of the team on the same page.

- Encourage contextual comments and @mentions in the group chat.
- Stand-up meetings work wonders in bridging the communication gap.
- Stay away from jargon, and encourage using simple language to ensure everyone has understood the point.

# 3. Problem: Lack of clarity

This, again, is the biggest hindrance in the way of custom software development. It is the root cause of most project management issues. Lack of project planning and unclear goals ultimately lead to project failure.

Project managers do not have methods to quantify project progress in several cases. Without clear objectives, the project development process can get haywire.

#### **Solutions:**

- Set up milestones and phase-wise quality tests.
- Communicate clear objectives of the project.
- SMART (Specific, Measurable, Achievable, Relevant, Time-bound) and CLEAR (Collaborative, Limited, Emotional, Appreciable, Refinable) methods of goal setting are proven and time-tested.
- Create goals and clearly communicate them with the teammates.
- Documenting the goals and development process is equally important.

### 4. Problem: Cost Overruns

Software development solutions costs can skyrocket if not monitored well. Sticking to the budget is another burning issue in software development. Cost management is a must to keep budgets in check.

## Solution:

 Use a reliable project scheduling tool to ensure that the project progresses as per the stipulated timeline and budget.

- Understand the project scope and ensure that an adequate budget is allocated to fulfil
  the requirements.
- If the company cannot fulfil all the client's needs in a given budget, the manager should convey it to the client rather than keep them in the dark.
- The manager should document everything to avoid conflict in future.

### 5. Problem: Unskilled team

Let us accept that software development is teamwork. Many brains work together to convert a concept into a reality. However, if the team lacks creative and talented members, it will affect the quality of work. The team should be equipped to handle problems arising during software development. A few members with sound industry experience and foresight can help pull off a project well.

#### **Solution:**

- Assess the workforce based on the requirements cited by the clients.
- Identify for which tasks the company might need outside help.
- If the workforce is not capable of pulling off the assigned task, the manager should consider hiring people to fill in the role in a freelance or permanent position.
- · Assign the roles as per skillset and document the process.

# 6. Problem: Absence of risk mitigation strategie

The project manager should have convincing answers to several what-ifs. During software development, many things may not go as planned. For example, some of the resources might change the job, or the client may shrink the project budget for whatsoever reason. The possibilities are boundless.

### **Solution:**

- Keep a contingency plan ready if things go unplanned.
- Identify risks before they become problems.

- Develop a project risk management system.
- Decide the course of action in case risks arise.

#### 7. Problem: Lack of dedication

As stated before, software development is a team project. Each member contributes to the strength of the team. Tepid involvement of even a single team member can affect the quality of work. Therefore, the project manager should ensure that team members realize the importance of their roles in the project. Without a dedicated team, a software development project cannot succeed.

#### Solution:

- Proper assignment of roles and responsibilities.
- Project tool to track performance and goal achievement.
- Regular communication with the team members to understand the challenges.

## 8. Problem: Unapproachable stakeholders

This is a common challenge faced by project managers. In many projects, the client stops getting involved in the project after the initial phase due to busy schedules or other reasons. Therefore, the team loses vision, and the project starts heading in a vague direction. The manager's job is to keep all the stakeholders on the same page throughout the project.

### Solution:

- Make clients and other stakeholders a part of the project management tool so they receive regular updates.
- Encourage them to participate in the project meetings actively.
- Ask for regular feedback from the client.
- Scheduling frequent meetings with the client and software development team helps resolve several issues.

#### 9. Problem: Impractical deadlines

Apple Founder Steve Jobs was infamous for his "reality distortion field". He often set impossible deadlines for his teams. This might have helped Apple achieve incredible results, but it does not always work. Jobs is also considered one of the most difficult bosses to work with.

The project manager must understand the team's strife. The manager's job is to balance the client and the team, not just to pressure the team to impress the client. The manager should set timelines considering the critical capabilities of his team, and if required, he should negotiate on behalf of his team.

#### Solution:

- Ask for input from all the stakeholders.
- Constantly keep an eye on project deadlines and milestones achieved.
- If the scope of work is enhanced, modify the timeline accordingly.

#### Conclusion

Undoubtedly, the software development process can be challenging for a variety of reasons. The most significant challenges include a lack of communication, unrealistic deadlines, and a lack of resources. To overcome these challenges, it is important to develop a strong communication plan, set realistic deadlines, and allocate adequate resources.

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