Postmortem: Developing an ERP System

Introduction:

In this postmortem, we reflect on the development of an Enterprise Resource Planning (ERP) system by our small team. ERP systems integrate various business processes and functions across an organization into a single unified system. Our team consisted of a small group of members who joined the project at different stages, making coordination and integration challenging initially. Additionally, the majority of the team struggled with testing due to a lack of prior experience in relevant courses (e.g., 345 course). At the outset, requirements and documentation were not as clear as desired, leading to ambiguity in the project scope. We also faced difficulties in deciding on the ideal framework and infrastructure for the project. Despite these challenges, the team maintained good communication, active participation from all members, and embraced pair programming to address coding hurdles. Our first sprint served as a learning experience, helping us understand each other's strengths and weaknesses. However, the late assignment of a team leader and the struggle to find a suitable meeting schedule posed further challenges.

What Went Wrong:

Late Assignment of Team Leader:

Despite the importance of having clear leadership from the outset, our team struggled as the leader was assigned late. This delayed decision-making processes and led to confusion regarding roles and responsibilities.  
*Why did it happen?*

The late assignment may have been due to initial uncertainty or oversight in the team formation process.  
*Impact:*

This delay hindered efficient decision-making and coordination, causing inefficiencies and slowing down progress.  
*Addressing the Issue:*

We addressed this by eventually appointing a leader and ensuring clear communication channels to distribute responsibilities.  
*Room for Improvement:*

* Assigning a leader earlier in the project would have provided better direction and alignment from the start.

Struggle with Testing:

A significant portion of the team lacked experience in testing methodologies, particularly due to a lack of exposure to relevant courses.  
*Why did it happen?*

Limited prior exposure to testing methodologies and tools contributed to this challenge.  
*Impact:*

The lack of testing expertise resulted in potential bugs and inefficiencies in the final product, increasing the risk of post-deployment issues.  
*Addressing the Issue:*

We addressed this by providing training sessions on testing methodologies and leveraging online resources to enhance our testing capabilities.  
*Room for Improvement:*

* Integrating testing components into the curriculum or offering dedicated training sessions earlier would have better prepared the team.

What Went Right:

Good Communication and Active Participation:

Despite the challenges, the team maintained excellent communication and active participation from all members.  
*Why did it happen?*

Regular team meetings and open communication channels fostered collaboration and ensured everyone remained informed and engaged.  
*Impact:*

This enabled smooth coordination, efficient problem-solving, and a cohesive team environment.  
*Addressing the Issue:*

We continued to prioritize open communication and encouraged active participation in meetings and discussions.  
*Room for Improvement:*

* Continuous reinforcement of communication practices and team-building activities could further enhance collaboration.

Even Distribution of Work:

Workload distribution was managed effectively, ensuring that tasks were evenly spread out in terms of time and effort.  
*Why did it happen?*

Regular progress tracking and transparency in task assignments facilitated a balanced workload distribution among team members.  
*Impact:*

This prevented burnout, minimized bottlenecks, and maintained steady progress throughout the project.  
*Addressing the Issue:*

We maintained regular check-ins to assess workload distribution and made adjustments as necessary to ensure fairness.  
*Room for Improvement:*

* Implementing more robust project management tools or techniques could further optimize workload distribution.

Conclusion:

In conclusion, this project taught us the importance of effective communication, proactive leadership, and continuous skill development. Despite facing various challenges, we successfully completed all project requirements, including bonus features, through collaborative efforts and perseverance. Moving forward, we aim to implement lessons learned from this experience to improve our project management processes and enhance our technical capabilities.