Exercise: DevOps Planning & Research

You are starting as a Junior DevOps in a IT Company. You get assigned to a new Project that develops software solutions for Banking systems. Currently, you are single devoted DevOps engineer on that project with mixed team members (Devs, QA, PM’s etc). Before the Kick-off of the Project, you are given the task to plan and research the best practices for the project.

* **Explain what steps you are taking for planning and research?**

To begin with, we need to have a better and full understanding of the whole project, and list some benefits/scopes for the project. We then create a suitable workflow that would help both me and the team to develop the application better and in a more timely manner.

Have daily meetings with each member/or the whole team in order to discuss progress made, and learn more about where each member would be most efficient at – software and programming/hardware part/cloud/ and others.

Check if we have any documentation, learn more about the banking best practices for similar projects,

estimate how much we would have to plan and research for this project.

Develop some kind of infrastructure and monitoring it, using monitoring tools. Learn more about how the security part of it and how it can be improved or be at the highest possible level.

Lastly, break the big project into smaller tasks and discuss what tools/techniques should be used. Then ask more experienced colleagues for help from within the company. Introduce some sort of automation tools or techniques that would help with the overall improvement and monitoring of the project.

* **How would you describe the process for DevOps best practices to your colleagues?**

We should focus on time management for each task, and do more research, improve the overall security, implement and deploy frequent updates.

Have rollback mechanism or too that would revert back to previous version of the application. Have a test environment in order to test new updates and ask for help from higher ups.

Encourage the collaboration between team members, introduce and use the CI/CD practices.

* **How would you organize your time for planning and research?**

Make clear priorities for each task and estimate the time it would take to complete them. Use different benchmarks in order together more data about the project, how it acts and how it can be improved.

* **What methods and tools are you using during this process?**

We can use Gantt for better planning and scheduling, Jira for tracking issues and collaboration, Source control tools (git, github, bitbucket), Microsoft teams/Slack for communication, Confluence for storing knowledge and documentation, online research (blogs/videos etc.), Stack overflow, Miro (collaboration, diagrams, discussions).

* **Describe the short (imagined) presentation of your research and planning, for your team briefly:**

Present the key findings and explain the best practices for the project, have different suggestions and feedback, which can be later discussed and improved upon.

Search for and try implement and adapting to new technologies, and experiment with different such.

Roll out the new updates by small increments and monitor for any behavior changes.