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.

1. Explain what steps you are taking for planning and research?

As a Junior DevOps, I would first of all review the project requirements and objectives in order to understand the client’s needs and have an idea of the expected outcomes. I would then think about the different tools and technologies necessary for the development, deployment, and maintenance of the software solutions. The focus would be on the most cost-efficient and effective technologies appropriate for the banking systems project. I would research the current best practices and standards for software development and DevOps, such as Agile and Scrum. I would consult with as many stakeholders as I can possibly contact: developers, QA engineers, PMs, and clients. And, of course, I would create a detailed project plan that outlines the tasks, timelines, deliverables, and dependencies required to achieve the project goals. Additionally, I would also review and refine this plan according to the feedback provided by my seniors.

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

To describe the process for DevOps best practices to my colleagues, I would put an emphasis on the importance of collaboration, automation, and continuous improvement. I would explain that DevOps is a methodology that integrates software development and IT operations to enable faster and more reliable software delivery. I would also discuss the key DevOps best practices, such as infrastructure as code, continuous integration and delivery, automated testing, and monitoring and logging.

1. How would you organize your time for planning and research?

Organizing my time for planning and research, I would first establish clear priorities and goals for the project. I would then allocate time for each task based on its level of importance and urgency. I would also schedule some checkpoints to review my progress and adjust my plan as needed. Additionally, I would make sure to devote time for team collaboration and communication to ensure that everyone is on the same page.

1. What methods and tools are you using during this process?

During this process, I would use research the best practices, collaborate with stakeholders, manage the project using tools like JIRA, perform testing with Selenium, automate the deployment process and operations using Jenkins, Docker, and Kubernetes, and monitor and log the performance with Splunk or Datadog.

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

When presenting, I would give an overview of the project and its objectives. I would also mention the best practices available at the moment and the tools that we will be using to accomplish our goals. I would present the project plan and stress on the importance of teamwork, friendly collaboration, and clear communication among teammates. These qualities are important for a smooth work process and timely delivery of the final product. Moreover, at the end of the presentation I would open up myself for questions and feedback from the team to ensure that we are all headed in the same direction. I would correct everything that needs to be corrected according to my seniors’ advice not just because I am a Junior DevOps but mainly because we are a team and seniority is not as important as knowledge exchange and mutual help for the sake of completing the project successfully.