The DevOps methodology is a software development approach that aims to reduce the time and effort required to release high-quality software. In this tech report, we will discuss the DevOps practices that are already or could potentially be employed in our project, including pipeline, virtual machine, and CI server.

Our project currently uses a continuous integration and delivery (CI/CD) pipeline through gitlab that automates the entire software development process from start to finish. This pipeline includes stages check, build, package, publish and deploy. Each stage is automated, and the pipeline is triggered automatically whenever a change is made to the repo. This prevents any errors being introduced during commits and ensures the code is stable before deploying it.

DevOps requires a culture of collaboration and communication between team members involved in the software development process. We use collaboration tools like Discord and Microsoft Teams to facilitate communication between team members as well the sharing of information and logging of ideas.

Our project should consider employing virtual machines (VMs) to create an isolated environment for development, testing, and deployment. This approach ensures that our code works consistently across multiple platforms and environments as well as making the installation process of Jhipster much easier. We could use virtualization software, such as VirtualBox, to create and manage our VMs or use the free ones provided by Google or UOB.

In conclusion, the DevOps methodology will be important for our project's success. Our Pipeline, communicating well as well as potentially introducing VMs will all make the development process much easier and resultantly allow us to maintain a high quality of work during our development process.