

CI/CD Implementation

Project Name and Description:

Here at UdaPeople, even though the Development team and the Operations team share updates with each other monthly, there is still a gap in information sharing as well as a lack of coordination between the team. To resolve this, I propose we implement CI/CD.

Project Purpose/Goal(s):

With CI/CD, codes created by developers are saved in shared repository where all members of the team can access them. This will give an opportunity for different people to work on the same code at the same time. In addition, several updates can be made to the codes in a day. This is referred to as CI (Continuous Integration). CD (Continues Delivery) on the other hands will enable us to automate our delivery process. We can both deploy and test without manual interventions. This will make our process to be faster, more efficient, enable faster feedback and bug/error detection and fixing.

To mitigate the cost, I propose we use open-source tool like Jenkins for our CI/CD process.

Success Factors:

With CI/CD, commit, Build, Testing and Deployment can be done automatically and seamlessly. This will reduce the time spent debugging errors and deploying codes.

Risk Factors:

The major risk/challenge of implementing CI/CD at UdaPeople will be knowledge of Jenkins. Only two members of the have a good knowledge of Jenkins. Therefore, we will have to train all the other members of the team.

Cost:

The training cost involved will be \$1,500 per person, making \$15,000 for ten members of the team.

Summary:

With the total cost of \$15,000, we will be able to implement CI/CD, we will be able to eliminate an average of 20 hours per week that team members spend on debugging. In addition, by making deployment faster, we can save up to another 20 hours spent in traditional deployment. At a rate of \$100 per hour (average hourly rate of Software Developers in this city), we will save \$4000 per week. This is an annual savings of \$48,000. This is more than our one-time cost of \$15,000. So, I believe CI/CD will be highly beneficial to our team.