

UdaPeople - CI/CD train





Need for CI/CD

Analogy:

Continuous Integration and Deployment has been analogous to trains in Industrial revolution era for tech industry today.

Aim:

To deliver goals and to meet requirements of various type of small businesses we will need to keep up with the development challenges as well. CI/CD will pave the way for a smooth development life cycle.



Benefits

Revenue:

Considerations:

- All business are not same, they all have different needs and requirements.
- UdaPeople's product team and dev teams will need to figure out differing requirements and deliver on time, to on-board new types of businesses.

CI/CD benefits:

- It will help the dev team keep up with new demands and needs of business to deliver on time.
- We can keep the deliverables small and continuous instead of major releases which are often prone to bugs and result in lack of confidence in the product.
- On time deliveries will result in good customer reviews which will result in more customers and thus increase in revenue.
- It takes less time to market a product if we are deploying to production quickly and reliably



Benefits (cont...)

Protect Revenue:

Existing customers look for alternatives if our app is unreliable and introduces bugs often with new releases.

Concerns:

- New release can introduce bugs
- If a release has to be rolled back, it results in a considerable amount of downtime.

CI/CD benefits:

We can protect revenue by delivering a smooth product which is reliable and has confidence of its user base by:

- Reduced downtime from a deploy-related crash or major bug.
- Quick undo to return production to working state



Benefits (cont...)

Protect Costs:

Concerns:

- Unoptimized or unnecessary Infrastructure can result in more costs than needed to run the system
- We have to spend a considerable time in testing and bugs still reach production
- Embarrassing or costly security holes can cause significant damage.

CI/CD benefits:

- We can Automate Infrastructure Creation, to avoid unnecessary costs
- We can Catch Unit Test Failures quickly and deliver a reliable product on time instead spending a lot of time in testing
- We can Detect Security Vulnerabilities on time and avoid costs and apologetic events.



Benefits (cont...)

Reduce Costs:

Concerns:

- Developers spend considerable time on resolving issues in new code
- Infrastructure costs do not change even when we do not need to spend as much at different times

CI/CD benefits:

- We can reduce developer time spent on issues by catching Compile Errors after merge. A quick identification of an issue results in a quick fix as well.
- We can reduce unnecessary infrastructure costs by automating Infrastructure Cleanup.