

A person with a red backpack is walking across a suspension bridge that spans a deep, dense forest. The bridge is made of metal cables and a mesh floor. The person is seen from behind, looking towards the far end of the bridge. The forest is lush and green, with many trees visible. In the background, there are more mountains and a valley. The sky is hazy. On the left side of the image, there is a white horizontal line above the text "CI-CD".

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CI-CD

“Benefits and highlights ”

# Content

1. Introduction.
2. Definitions.
3. Problems we are facing.
4. CI-CD VS Traditional way
5. Benefits of CI-CD to solve these problems.

# 1.Introduction:

A simple metaphor to demonstrate the Idea

→ Making a product **Before** machines and technology in generals:

- 1- requires great effort , very high cost and wasting time, resources,.....
- 2- difficult to get immediate feedback from the customer/client
- 3- apply the needed modifications on our product
- 4- **difficulty** to cover the market demand.

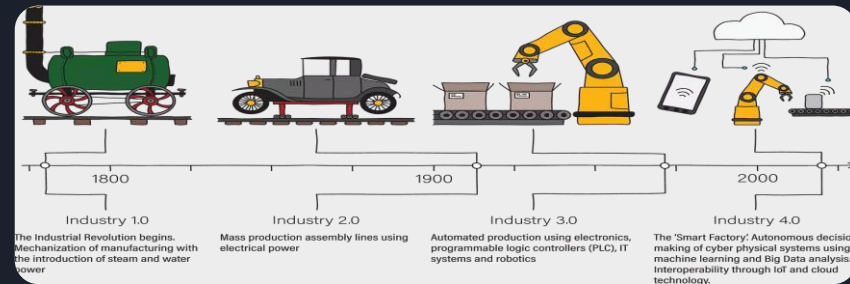
→ Making a product **After** machines and technology in generals:

- 1- automated process to manufacturing anything needed.
- 2- we can get hundreds or thousands of cutting-edge technology items.
- 3- get reliable products:  
performing many of quality control tests to reach a reliable product.
- 4- less cost and effort.
- 5- continuous improvement of the products

Manual



Automated



## 2.Definitions:

CI – CI stands for continuous integration – continuous Deployment

### → Continuous Integration [ CI ]

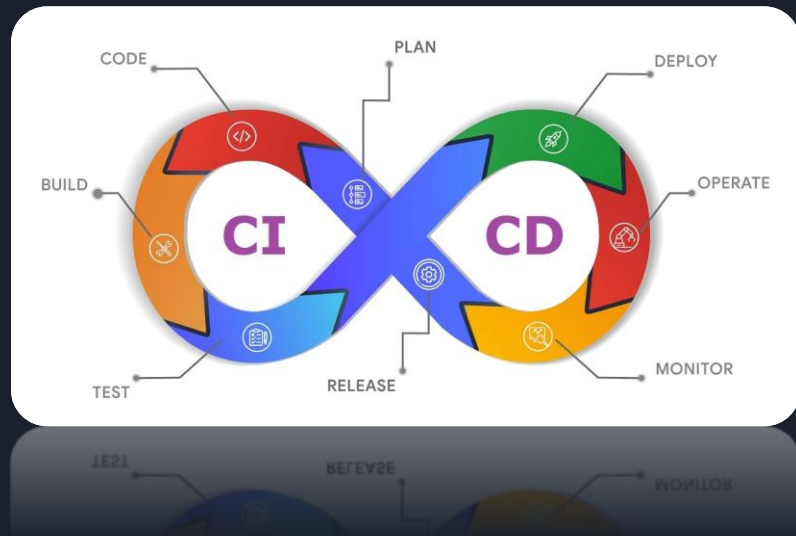
The practice of merging all developers' working copies to a shared mainline several times a day.

### → Continuous Deployment [ CD ]

A software engineering approach in which the value is delivered frequently through automated deployments.

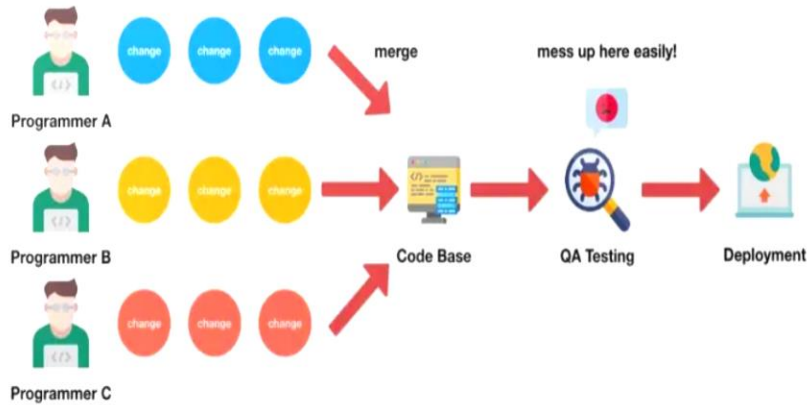
### → Continuous Delivery

An engineering practice in which teams produce and release value in short cycles.



## 4-CI-CD VS Traditional way

### Traditional Way



### With CI & CD

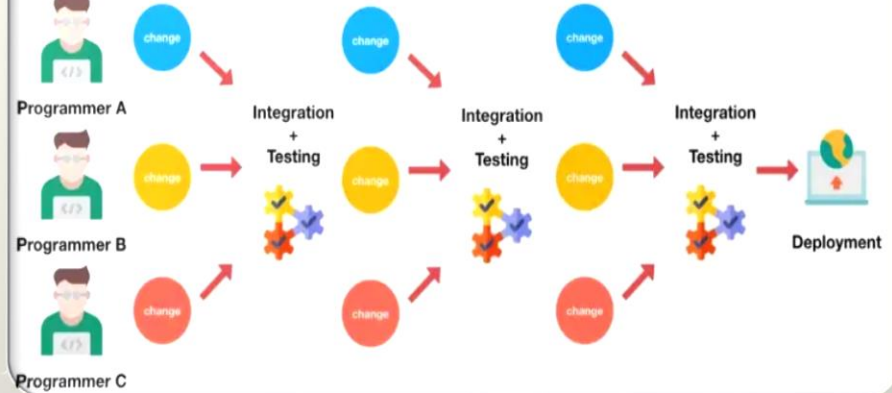
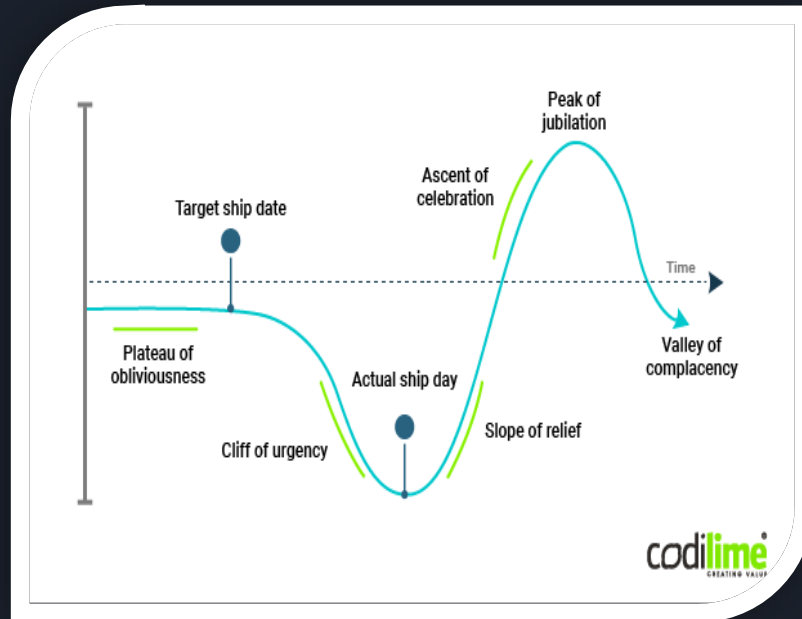


Photo credits : <https://m.oursky.com/battle-tested-how-we-built-and-master-our-ci-cd-pipeline-2ce99c9b2fa4>

### 3. Problems we are facing:

- 1- Delivering software application requires a lot of effort, time.....
- 2- It takes a long time to provide a product to be tested by the client then of course “as usual” he provides many modifications to be considered and here we go again....
- 3- Applying the needed modifications on our product.
- 4- During production we are not able to take immediate actions [roll back or provision resources] for some incidences which is a fatal flaw from security and business perspective.
- 5- Implement changes gradually



The emotions cycle of manual delivery

Credits: <https://codilime.com/blog/business-benefits-of-ci-cd/>



## 1- Reducing the Cost:

- ## 2- Increasing the Revenue:

- ### 3-Protecting the Revenue:

- ## 4-Avoiding Cost:

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# Thank You

