DEPLOYMENT TYPES

WHATS IS DEPLOYMENT?

The term Deployments refers the installation of a Web-Application on WebApplication server.

WEB APPLICATION:

A web application is a program that can be accessed via a browser and is linked to a database.

Can interact with end users.

We can Read and Manipulate.

Complex Functionality.

WEBSITE :

A website is a collection of related pages containing images, audio, or videos linked by a single domain name.

Can't interact with end users.

We can't Read and Manipulate.

Simple Functionality.

WHY WE NEED ?

The Main essence of the Deployments is

Adding New Features to the Application.

Removing the Bugs.

Enhancing the New Features.

Improving the Performance.

Breaking Large Applications to MicroServices.

THINGS NEED FOR THE DEPLOYMENT ?

We need to have Infra Setup.

New Release of code.

Involvement of Dev, QA and DevOps Team.

Creating New Db’s If needed.

Approval from RM (in case of New release).

THINSG TO CONSIDER AND TAKEN CARE WHILE DEPLOYMENT.

Need to take Backups of the Current Builds and DataBases.

Need To Provide Isolated Environments for Dev, Test and Prod.

Can be able to do RollBack if the Deployment fails in some cases.

Make sure we are deploying the correct env and Client Application Servers.

TYPES:

BLUE-GREEN DEPLOYMENT

ROLLING STRATEGIES

CANARY DEPLOYMENT

RECREATE STATEGY

A/B DEPLOYMENT

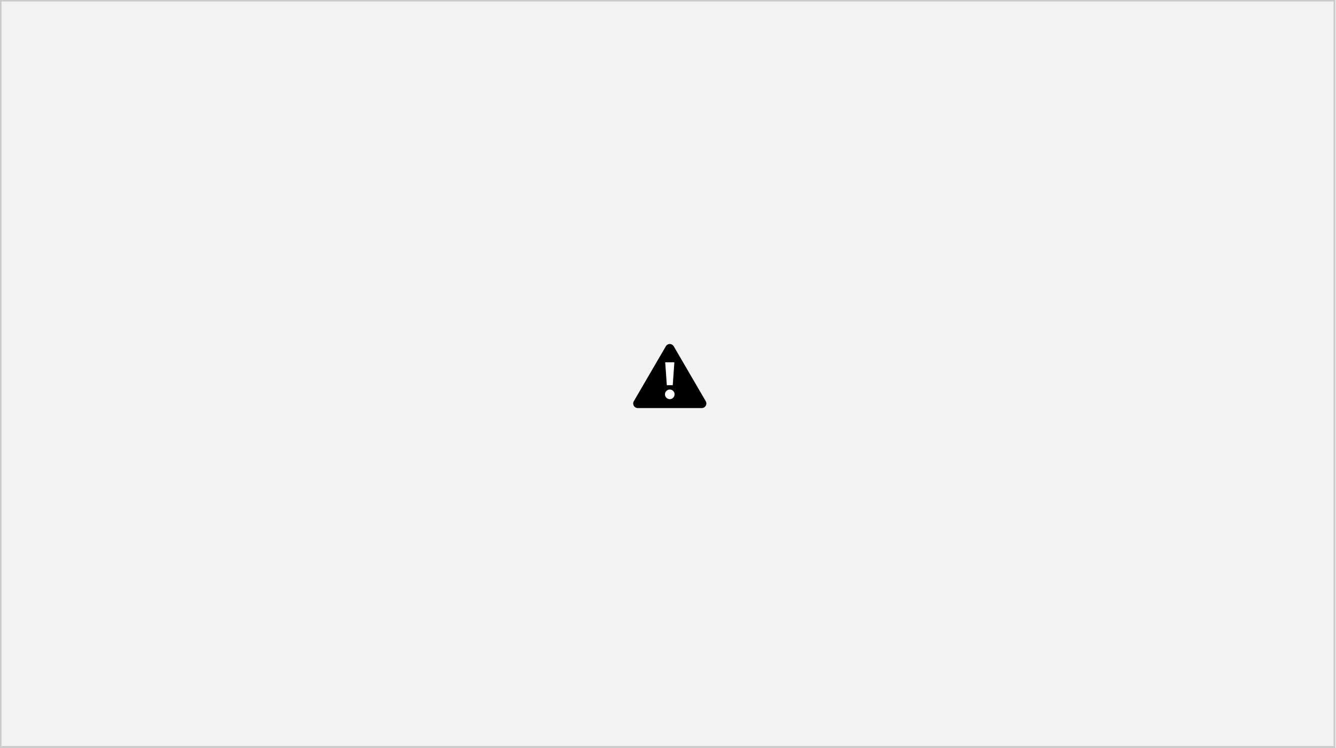
BLUE-GREEN DEPLOYMENT:

If we have some existing servers then we create new servers and we will route traffic by using ELB from existing servers to the new servers.

If it will not work properly we need to do Rollback

Blue is the Old code and the Green is New code.

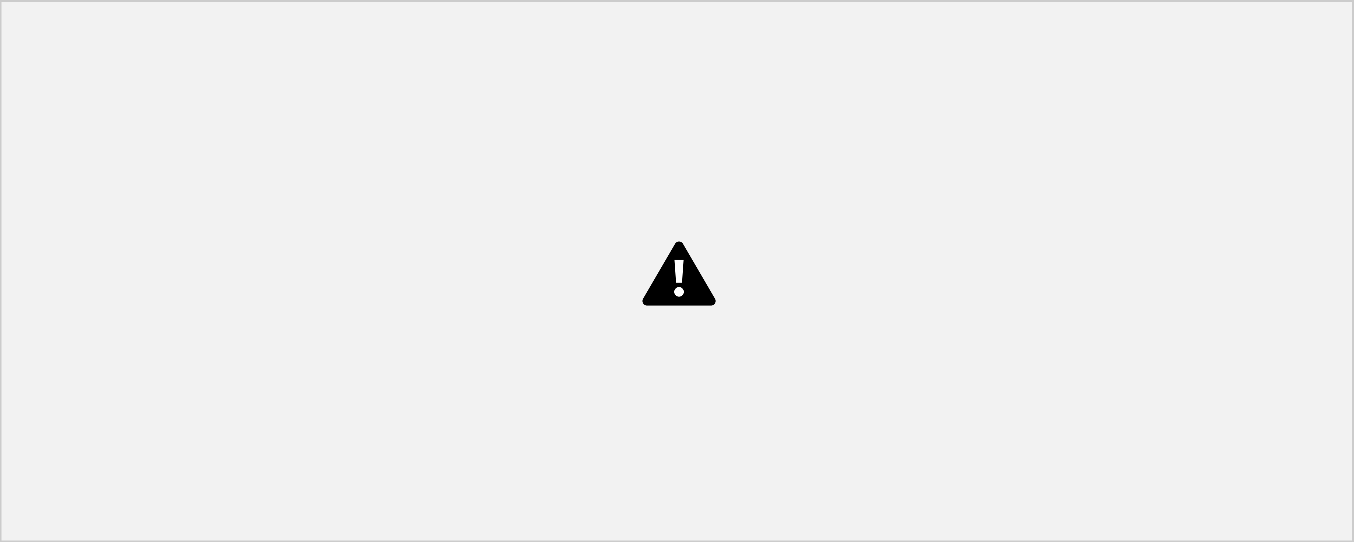
Blue/Green Deployment: Version B is released alongside Version A, and then the traffic is switched over to Version B.



ROLLING STRATEGIES:

If you have some application servers running then you will create some new servers you will remove old.

in that case your old code and new code will be capable of running at same time in parallel environment that is old environment and new environment.



CANARY DEPLOYMENT:

It will keep updating new servers and will delete the old servers.

It is useful when two different codes need to be run in the new environment

Canary: Version B is released to a subgroup of users, then proceeds to a full rollout

RECREATE STATEGY:

We need to Down all the servers and we need to deploy new version then we need to bring the services into Running state.

We can also achieve this on another way we need to create a separate infrastructure.

And you can migrate to new infra to minimise the downtime.

But in this case we can run previous, current and new code run in same time.

Here we required some downtime.

Recreate: Version A is terminated, and Version B is then deployed.

A/B DEPLOYMENT:

This will work on LoadBalancer.

If Port-A has old code and serving for server-1 the Port-B will server for the new code.

A/B Testing: Version B is released to a particular subset of users under specific conditions.

CUSTOM STATEGY:

Zero downtime deployment is a deployment method where your website or application is never down or in an unstable state during the deployment process. To achieve this the web server doesn't start serving the changed code until the entire deployment process is complete.