**Canary Deployment**

Canary Deployment follows the strategy that releases the feature or new versions into the target servers/nodes incrementally to the subset of users. This deployment will happen in incremental phases. And the subset of users will act as the Testers/validators who will verify the release.

# **Pros of Canary Deployment**

* Canary Deployment allows real users or acting real users of the Production environment to test the New Features.
* No Downtime while updating or releasing the new feature.
* Cheaper in terms of Infrastructural resources.
* Rollback to the older version made it very easy.

# **Cons of Canary Deployment**

* When limiting the number of nodes for the end-user might impact the overall performance.
* Canary Deployment Mechanism is complex.
* User verification and testing may take time and make the process slower.
* The monitoring and feedback system for the infrastructure should be modified to monitor the canary deployment separately.

# **Blue-Green Deployment**

Blue and Green means two identical Production environments. Which mean, we will have two identical production environments. One is Blue which actually serves the end users traffic, and another is Green which is an exact parallel environment of Blue but pods will be deployed with new version of code, and once this is certified by the QA team or Business analyst, we will make this environment as Blue and update the Load Balancer rules to serve the end users traffic from this new environment.

**Pros of Blue-Green Deployment**

* Rollback is easy as we have a whole set of Production environments.
* This is not Risky in terms of sending the defective feature as we are testing it in the Production alike Staging environment.
* Deployment is fast and simple compared to other Deployment Strategies.

# **Cons of Blue-Green Deployment.**

* Since we have an Identical Two production environment, the cost of the infrastructure is very High.
* The effort of managing/maintaining the Production is increased.
* Creating Delivery Pipeline is difficult as we have two environments to maintain.
* Interactive Reporting or Dashboard is required to Manage the Deployment.