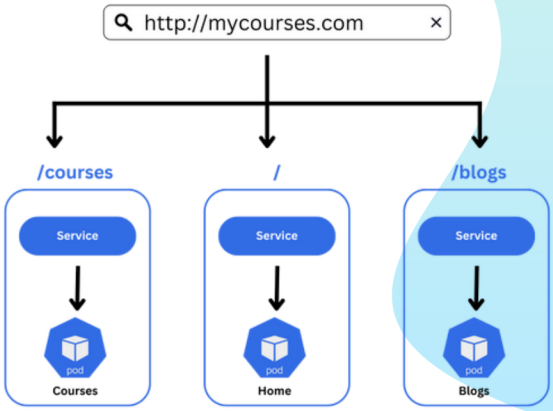
Ingress In Kubernetes

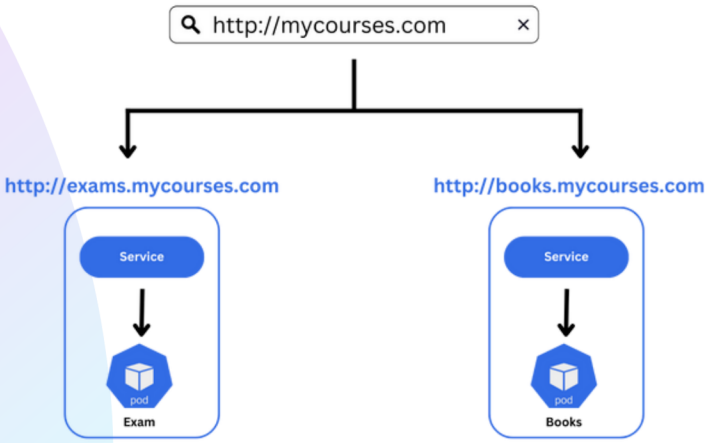
Ingress:

- Ingress helps connect your Kubernetes cluster to the outside world by allowing incoming web traffic.
- It decides where the traffic should go based on the website address (URL) or the path that is requested.
- Ingress enables secure communication by adding SSL (lock symbol) to website addresses.

Path-based routing:

- Path-based routing is a feature of Ingress that allows you to route requests based on the URL path.
- For example, if someone enters "mycourses.com/courses" in their browser, Ingress will send them to the service running for the course's deployment. If they enter "mycourses.com/blogs," they will be directed to the blog's service.





Host-based routing:

- Host-based routing is another feature of Ingress that allows you to route requests based on the hostname in the request's URL.
- So, if someone goes to "exams.mycourses.com," they will see the exam page. If they go to "books.mycourses.com," they will see the books page.

SSL termination:

- SSL termination refers to the process of decrypting SSL/TLS-encrypted traffic at the Ingress controller.
- The Ingress controller handles the encryption and decryption, relieving the backend services from this responsibility.
- It allows you to secure your applications by terminating SSL/TLS at the Ingress controller and forwarding the traffic to your services in plain HTTP.

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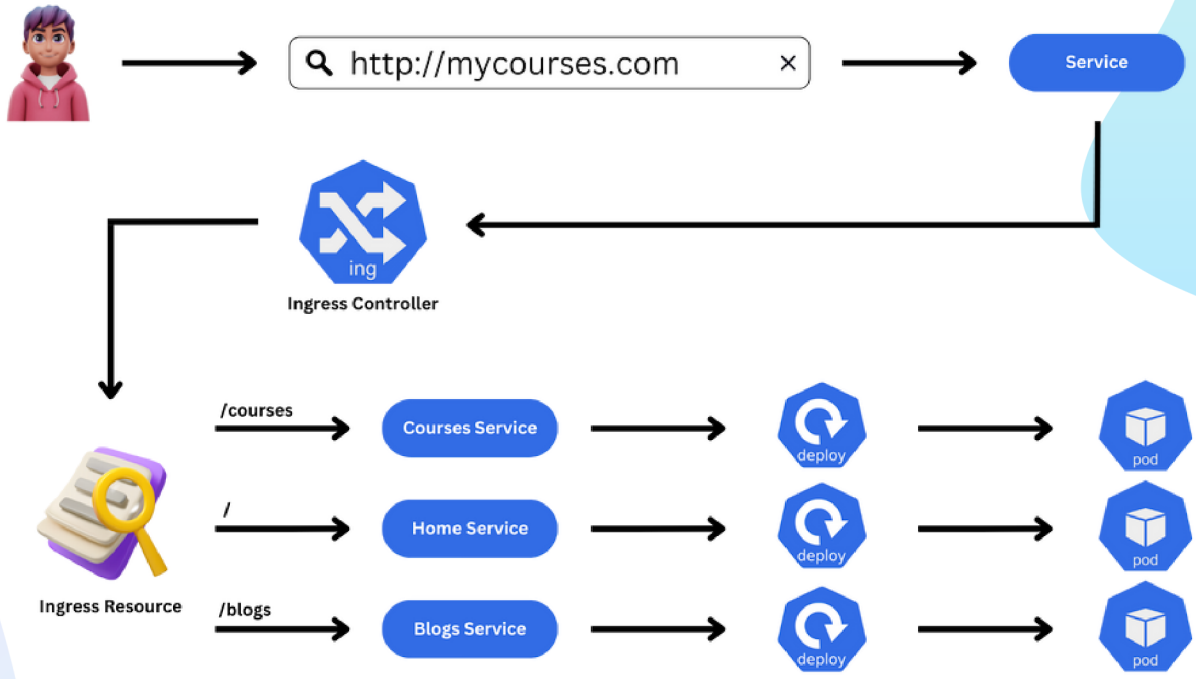
How Ingress works:

- Ingress works by combining rules, paths, and backend services to route external traffic to the appropriate destinations within the cluster.
- When a request arrives at the cluster's external IP or domain, the Ingress controller receives it and applies the defined rules.
- Based on the rules and matching paths or hostnames, the Ingress controller forwards the request to the specified backend service or services.



Practical Implementation:

For practical implementation on Ingress, refer to the GitHub repository.