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# Business Profile Service

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# Overview

## Requirements

### Functional

- Develop CRUD API's for Business Profile
- Create/Update to Business Profile must be approved by subscribed products.

### Non Functional

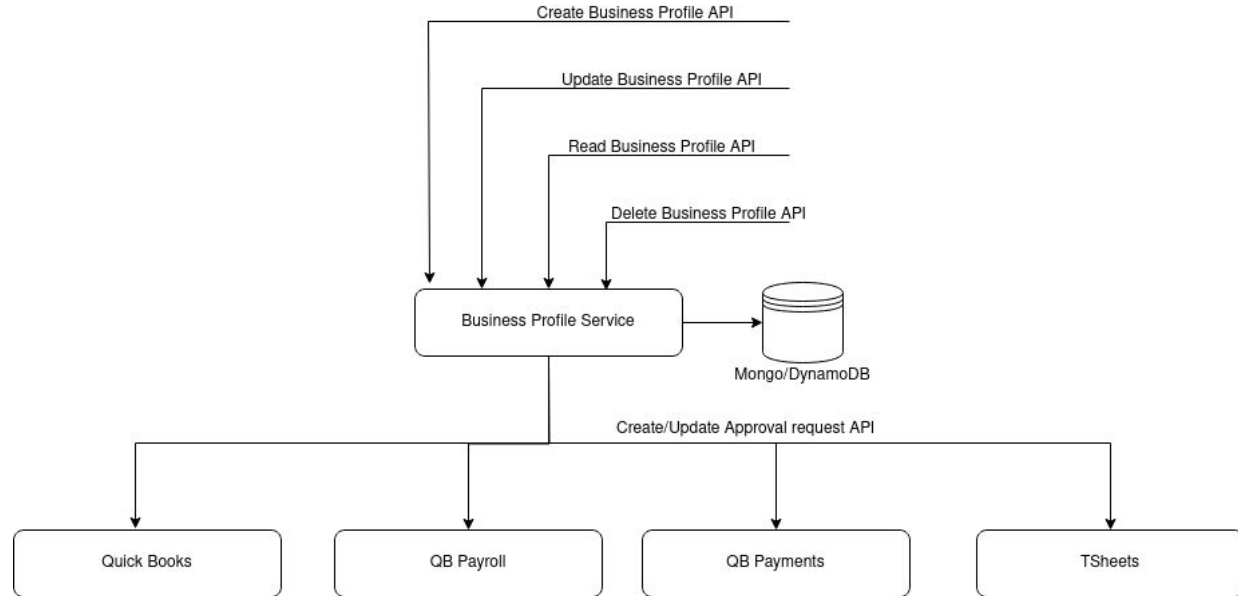
- Expected Load - 1000TPS
  - Expected response time - <100ms
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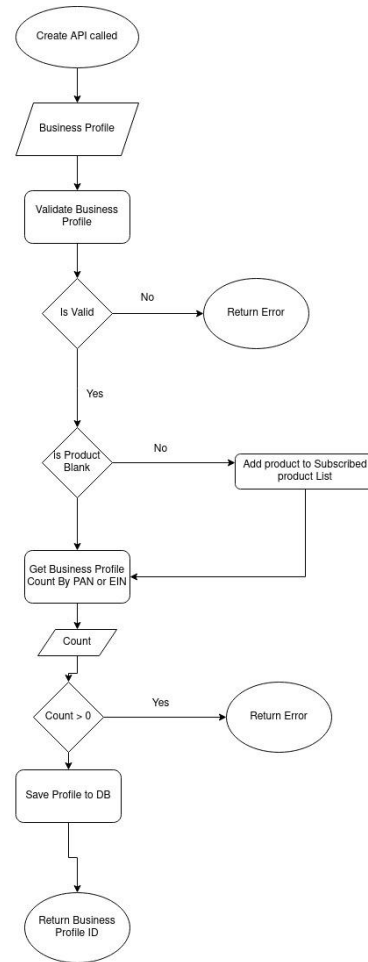
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# Assumptions

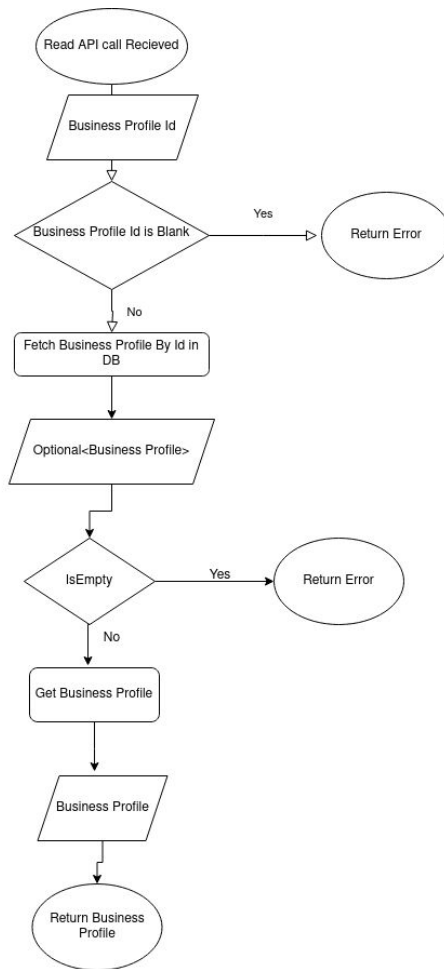
- Subscribed product discovery is done by saving/retrieving list of products from/to Business Profile
  - When create api called - Duplicacy check is done by checking for PAN or EIN
  - Business profile Create and updated api adds calling product to Subscribed Product List
  - Kubernetes used for deployment for ease of scaling and rolling updates and pod management
  - Whenever a new product is added its URL has to be added in application.properties
  - Assuming sufficient hardware resources are in place with optimal settings
  - Assuming Approval API does at most 1 db call
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# Component Diagram

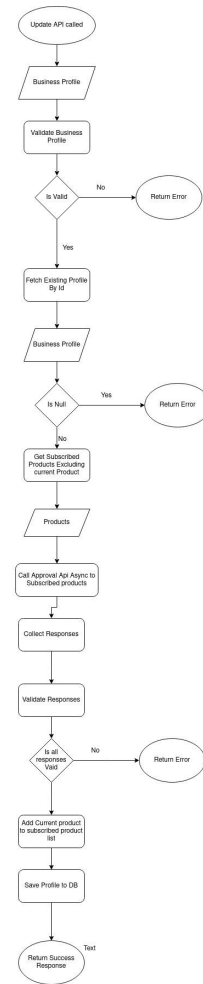




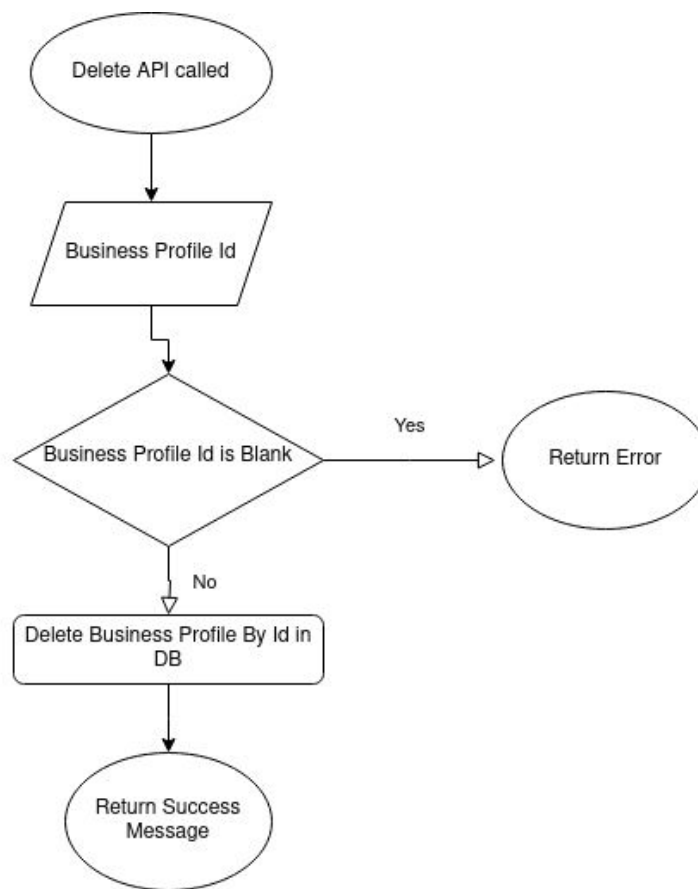
Create Business Profile API Flow



Read Business Profile API Flow



Update Business Profile API Flow



**Delete Business Profile API Flow**



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# Optimizations

## Database

- Connection Pooling
- Create indexes on fields id, pan, ein, pan&ein.

## Approval API calls

- Call Subscribed products excluding calling product.
  - Call all api in parallel
  - Thread pooling
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# Resilience

## Hystrix

- Timeout - 500ms
- Error Threshold Percentage - 50
- Request Volume threshold - 5
- Http Status 4XX are ignored as they are expected

## Retry

- Retry count - 3
  - Only Failed responses are retried (Declined ie 4XX are ignored)
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**THANK YOU**

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