Order Placement:

- A user places an order via Orders Service (hosted on Server-1).
- Orders Service calls Customer Service (hosted on Server-3) to validate customer details.
- Once validated, Orders Service saves the order details in the database.

2. Delivery Assignment:

- Delivery Service (hosted on Server-2) queries Orders Service to get pending orders.
- It also queries Customer Service (hosted on Server-3) to get the customer address.
- Once the delivery is scheduled, it updates Orders Service.

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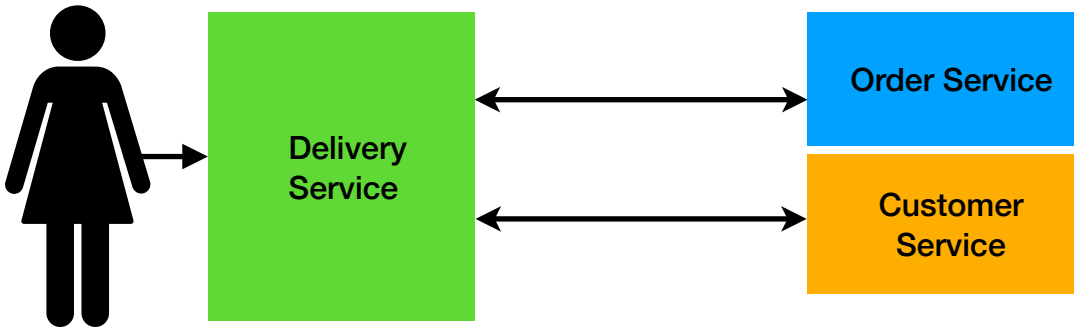
Architecture of the micro services:



Below is the ansible playbook deploys three micro services:

```
---
- name: Deploy Microservices
  hosts: all
  become: yes
  tasks:

  - name: Deploy Orders Service on Server-1
    hosts: server-1
    tasks:
      - name: Copy Orders Service JAR
        copy:
          src: orders-service.jar
          dest: /opt/microservices/orders-service.jar
      - name: Start Orders Service
        command: java -jar /opt/microservices/orders-service.jar
        async: 30
        poll: 0
      - name: Ensure Orders Service is running
        wait_for:
          port: 8081
          timeout: 30

  - name: Deploy Customer Service on Server-12
    hosts: server-3
    tasks:
```

```
    - name: Copy Customer Service JAR
      copy:
        src: customer-service.jar
        dest: /opt/microservices/customer-service.jar
    - name: Start Customer Service
      command: java -jar /opt/microservices/customer-service.jar
      async: 30
      poll: 0
    - name: Ensure Customer Service is running
      wait_for:
        port: 8083
        timeout: 30

- name: Deploy Delivery Service on Server-2
  hosts: server-2
  tasks:
    - name: Copy Delivery Service JAR
      copy:
        src: delivery-service.jar
        dest: /opt/microservices/delivery-service.jar
    - name: Start Delivery Service
      command: java -jar /opt/microservices/delivery-service.jar
      async: 30
      poll: 0
    - name: Ensure Delivery Service is running
      wait_for:
        port: 8082
        timeout: 30
```

Environment Configuration

- “Orders Service” runs on server-1 at port 8081.
- “Delivery Service “ runs on server-2 at port 8082.
- “Customer Service” runs on server-3 at port 8083.
- The Orders Service calls
  http://server-3:8083/customer/{id} for customer details.
- The "Delivery Service” calls the below endpoints for “Order Service” and “Customer Service”:
  http://server-1:8081/orders/{id} to fetch orders.
  http://server-3:8083/customer/{id} to get the customer address.