#### **Overview**

Pactify is designed using a microservices architecture with Docker and Docker Compose.

#### Components:

- Node.js Application: Handles the main business logic.
- MongoDB: Serves as the database for the application.
- Docker: Containerizes the application and its dependencies.
- Docker Compose: Spins up multi-container applications.

## Workflow Implementation

### Build Stage:

- Purpose:
- To build the Docker image for the application.
- Steps:
- 1. Pull the base Node.js image.
- 2. Install dependencies and build the client application.
- 3. Install dependencies and set up the server application.
- 4. Copy the built client application to the server's public directory.
- 5. Expose the server port and define the startup command.

### Deploy Stage:

- Purpose:
- To deploy the application using Docker Compose.
- Steps:
- 1. Define the MongoDB and application services.
- 2. Set the necessary environment variables.

# Test Stage:

- Purpose:
- To verify the application is running correctly.
- Steps
- 1. Use a tester service to send a request to the application.
- 2. Ensure the tester service always exits successfully.