

# Social Media System Design - Progressive Stages

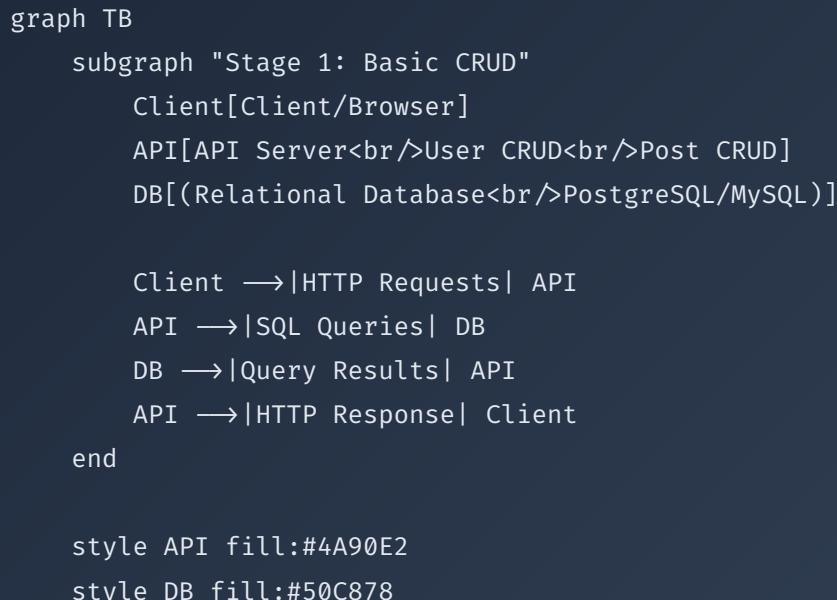
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## Stage 1: Basic CRUD Operations

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### Architecture Overview

Simple monolithic architecture with basic CRUD operations for users and posts.



## Data Flow

```
sequenceDiagram
    participant C as Client
    participant A as API Server
    participant D as Database

    Note over C,D: Create Post Flow
    C->>A: POST /api/posts
    A->>D: INSERT INTO posts
    D-->>A: Success
    A-->>C: 201 Created

    Note over C,D: Get Posts Flow
    C->>A: GET /api/posts
    A->>D: SELECT * FROM posts
    D-->>A: Posts Data
    A-->>C: 200 OK + Posts
```

## Database Schema

```
erDiagram
    USERS ||--o{ POSTS : creates
    USERS {
        int id PK
        string username
        string email
        string password_hash
        timestamp created_at
        timestamp updated_at
    }
    POSTS {
        int id PK
        int user_id FK
        string title
        text content
        int votes
        timestamp created_at
        timestamp updated_at
    }
}
```