Backend Development Steps (Spring Boot) for NASA Mars Weather App

1. Create Spring Boot Project:

- Use Spring Initializr (https://start.spring.io/).

- Add dependencies: Spring Web, Spring Boot DevTools, Lombok, (optionally Spring Configuration Proces

2. Set Up API Key:

- Store API key in application.properties or application.yml (not .env directly).

- Example:

  nasa.api.key=YOUR_API_KEY

  nasa.api.url=https://api.nasa.gov/insight_weather/

3. Configuration Class (Optional but Recommended):

- Create a class to read properties using @Value or @ConfigurationProperties.

4. Write a Service Class:

- Use RestTemplate or WebClient to call the NASA API.

- Parse the JSON response to Java POJOs.

5. Create a Controller:

- Expose REST endpoints to frontend.

- GET: Fetch current weather data.

- DELETE (optional): Delete cached/stored data (only if storing).

6. Optional: Add Caching or Database:

- Use H2 for dev or PostgreSQL/MySQL for production.

- Cache responses if needed (e.g., using Spring Cache).

7. Test Your API:

- Use Postman or Curl to ensure endpoints work correctly.

8. Enable CORS:

- Allow your React frontend to access the backend APIs by configuring CORS.

Note:

- DELETE operation is optional and only useful if data is being stored.

- If you're only fetching data from NASA API live, GET is sufficient.