

## MERN Stack Training

**Company:** Sensation Software Solutions

**Student Name:** Gurvinder Singh

**Training Duration:** 6 Months

**Days:** 67

---

## Objective of the Day

Implement **login endpoint** in `auth.js` and handle **secure validation** of credentials with **JWT token generation** for session management.

### Key Goals:

- Validate user login credentials.
  - Generate **JWT tokens** for authenticated users.
  - Handle **invalid login scenarios** gracefully.
- 

## Work Done on Day 67

1. Added **login endpoint** accepting `email` and `password`.
  2. Verified credentials against **hashed passwords** in backend.
  3. Generated **JWT token** with user ID and expiration.
  4. Defined **error responses** for invalid credentials.
  5. Planned token usage for **frontend session management**.
- 

## Frontend-Backend Integration Considerations

- Designed **fetch API calls** from React login form.
  - Planned **JWT storage strategy** (`localStorage/sessionStorage`).
  - Mapped **error messages** to **UI notifications**.
- 

## Hands-on Practice

- Tested login with multiple users.
  - Verified correct JWT token creation and expiry.
  - Checked error handling for wrong passwords and unregistered emails.
-

## Conclusion

Day 67 implemented **secure login flow** using JWT, preparing backend for frontend integration.