



SAL INSTITUTE OF TECHNOLOGY AND ENGINEERING RESEARCH

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Student's Weekly Report of Internship

Student Name:	Anshul Patel		
Enrollment Number:	210670107047		
Week Duration:	5 Days		
Name Of Organization:	OPL Innovate		
External Guide Name:	Deepak Vishwakarma		
External Guide Contact details:	Email:	Deepak.vishwakarma@oplinnovate.com	Mob No: 9827375391
Internal Faculty Guide Name:	Dr. Krishna Hingrajiya		

Work done in last Week with description (Attach supporting Documents Like Diagram, Screen Shot of each Work):

- 1.Entity Class Creation
2. Entity Relationships
- 3.Testing & Validation

Plans for next week:

- 1.Develop service layer to manage business logic effectively.
2. Implement caching mechanisms for frequent queries to improve response times.
- 3.Optimize database indexing and query execution plans.

Total Working Hrs: 40

Signature of Student:

The above entries are correct, and the grading of work done by Trainee is

Excellent	Very Good	Good	Fair	Below Average	Poor

Signature of External Guide with Company Seal:

Signature of Internal Guide:

Date:

Date:

Entity & Database Structure

Work Completed:

Entity Class Creation:

Designed and implemented entity classes for `User`, `Product`, `Order`, `Category`, and `Cart`.

Applied proper annotations for mapping relationships and constraints.

Defined primary keys, foreign keys, and unique constraints for integrity.

Entity Relationships:

Established `OneToMany`, `ManyToOne`, and `ManyToMany` mappings.

Implemented cascade operations and optimized fetch types.

Enforced referential integrity for accurate data linking.

Database Migrations:

Enabled automated schema generation for seamless deployment.

Introduced indexing strategies to speed up query execution.

Conducted performance testing on table operations.

Repository Layer Development:

Developed repository interfaces for database interactions.

Optimized custom queries for complex data retrieval.

Implemented pagination and sorting mechanisms.

Testing & Validation:

Conducted extensive unit tests to validate entity relationships.

Used Postman to test data persistence and retrieval efficiency.

Future Plans:

Develop service layer to manage business logic effectively.

Implement caching mechanisms for frequent queries to improve response times.

Optimize database indexing and query execution plans.