

# Lab 03

## Database Update Operations

IT615 Database Management System, Autumn'2021; pm\_jat @ daiict

In this lab, you practice some database INSERT, UPDATE, and DELETE operations.

### Exercise #1

Let us say we extend “Sales” database with some additions shown as in modified description of Lab02; shown in RED color.

```
customer(cust_id, name, city, state, pin, email)
-- a tuple of this relation represents a customer
-- Let cust_id be the Primary Key
items(item_code, item_name, category_id, saleprice, qty_in_stock,
reorderlevel (int), averagepurchaseprice (int) );
-- a tuple of this relation represents an item
-- Let item_code be Primary Key
invoice(invno, invdate, customerid)
-- a tuple of this relation represents an invoice
-- Let invno be the Primary Key
-- customerid is a foreign key referring into customer table
invoicedetails(invno, itemcode, qty, price)
-- used to record details of an invoice; a tuple of this
-- relation represents an item entry for an invoice
-- invno is a foreign key referring into invoice table
-- itemcode is a foreign key referring into item table
-- Let {invno, itemcode} jointly be the Primary Key
```

Do following:

- Write down SQL statements for performing operations listed below.
  - Run them on your server. If you find them correct and doing what is expected to do. Save all SQL statements in a text file for submission.
1. Add 5 customers
  2. Add 10 items
  3. Add 5 invoices
  4. Add 2-4 items in all invoices
  5. Update price of given item
  6. Give 10% increment to all items
  7. Give 5% increments to all items for category = 2
  8. Delete a given item from items item code = 11101
  9. Delete a given customer = 101
  10. Delete all invoices of a given state '2019-12-11'; this should also delete all items of affected invoices

**Submission Require:** a text file containing SQL statements for all queries.

### Exercise #2

Understanding DDL script of DA-Acad database schema from:

[http://intranet.daiict.ac.in/~pm\\_jat/acad\\_ddl.sql](http://intranet.daiict.ac.in/~pm_jat/acad_ddl.sql)

Create the Schema diagram for this database!

**Does not require submission**