

CREATION QUERIES

```
CREATE TABLE IF NOT EXISTS `mydb`.`REGION` (  
  `REGION_ID` INT NOT NULL,  
  `REGION_NAME` VARCHAR(20) NULL,  
  PRIMARY KEY (`REGION_ID`))  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`SUBREGION` (  
  `SUBREGION_ID` INT NOT NULL,  
  `SUBREGION_NAME` VARCHAR(30) NULL,  
  `REGION_ID` INT NULL,  
  PRIMARY KEY (`SUBREGION_ID`),  
  INDEX `FK_idx` (`REGION_ID` ASC) VISIBLE,  
  CONSTRAINT `FK`  
    FOREIGN KEY (`REGION_ID`)  
      REFERENCES `mydb`.`REGION` (`REGION_ID`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`WAREHOUSE` (  
  `CODE` INT NOT NULL,  
  `SUBREGION_ID` INT NULL,  
  PRIMARY KEY (`CODE`),  
  INDEX `FK_idx` (`SUBREGION_ID` ASC) VISIBLE,  
  CONSTRAINT `FK`  
    FOREIGN KEY (`SUBREGION_ID`)  
      REFERENCES `mydb`.`SUBREGION` (`SUBREGION_ID`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`BOOKS` (  
  `ISBN` INT NOT NULL,  
  `TITLE` VARCHAR(45) NULL,  
  `PRICE` VARCHAR(45) NULL,  
  PRIMARY KEY (`ISBN`))  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`YEAR` (  
  `YEAR_ID` INT NOT NULL,
```

```
`YEAR` YEAR(4) NULL,  
PRIMARY KEY (`YEAR_ID`))  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`MONTH` (  
  `MONTH_ID` INT NOT NULL,  
  `MONTH` VARCHAR(15) NULL,  
  `YEAR_ID` INT NULL,  
  PRIMARY KEY (`MONTH_ID`),  
  INDEX `FK_idx` (`YEAR_ID` ASC) VISIBLE,  
  CONSTRAINT `FK`  
    FOREIGN KEY (`YEAR_ID`)  
      REFERENCES `mydb`.`YEAR` (`YEAR_ID`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`DAY` (  
  `NUM_DAY` INT NULL,  
  `DAY_ID` VARCHAR(45) NOT NULL,  
  `MONTH_ID` INT NULL,  
  PRIMARY KEY (`DAY_ID`),  
  INDEX `FK_idx` (`MONTH_ID` ASC) VISIBLE,  
  CONSTRAINT `FK`  
    FOREIGN KEY (`MONTH_ID`)  
      REFERENCES `mydb`.`MONTH` (`MONTH_ID`)  
      ON DELETE CASCADE  
      ON UPDATE CASCADE)  
ENGINE = InnoDB
```

```
CREATE TABLE IF NOT EXISTS `mydb`.`FACTS_TICKET` (  
  `SELL_BY_PRODUCT` DOUBLE NOT NULL,  
  `TICKET_NUMBER` INT NULL,  
  `BOOKS_ISBN` INT NULL,  
  `WAREHOUSE_CODE` INT NULL,  
  `DAY_ID` VARCHAR(45) NULL,  
  PRIMARY KEY (`SELL_BY_PRODUCT`),  
  INDEX `FK_idx` (`DAY_ID` ASC) VISIBLE,  
  INDEX `FK_idx1` (`WAREHOUSE_CODE` ASC) VISIBLE,  
  INDEX `FK_idx2` (`BOOKS_ISBN` ASC) VISIBLE,  
  CONSTRAINT `FK`  
    FOREIGN KEY (`DAY_ID`)  
      REFERENCES `mydb`.`DAY` (`DAY_ID`)  
      ON DELETE CASCADE
```

```

    ON UPDATE CASCADE,
CONSTRAINT `FK`
    FOREIGN KEY (`WAREHOUSE_CODE`)
    REFERENCES `mydb`.`WAREHOUSE` (`CODE`)
    ON DELETE CASCADE
    ON UPDATE CASCADE,
CONSTRAINT `FK`
    FOREIGN KEY (`BOOKS_ISBN`)
    REFERENCES `mydb`.`BOOKS` (`ISBN`)
    ON DELETE CASCADE
    ON UPDATE CASCADE)
ENGINE = InnoDB

```

INSERTION QUERIES

```

INSERT INTO `mydb`.`REGION` (`REGION_ID`, `REGION_NAME`) VALUES (1, 'US');
INSERT INTO `mydb`.`REGION` (`REGION_ID`, `REGION_NAME`) VALUES (2, 'UK');
INSERT INTO `mydb`.`REGION` (`REGION_ID`, `REGION_NAME`) VALUES (3, 'India');
INSERT INTO `mydb`.`REGION` (`REGION_ID`, `REGION_NAME`) VALUES (4, 'Australia');

INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (1, 'a', 1);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (2, 'b', 1);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (3, 'c', 1);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (4, 'd', 2);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (5, 'e', 2);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (6, 'f', 2);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (7, 'g', 3);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (8, 'h', 3);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (9, 'i', 3);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (10, 'j', 4);
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (11, 'k', 4);

```

```
INSERT INTO `mydb`.`SUBREGION` (`SUBREGION_ID`, `SUBREGION_NAME`, `REGION_ID`)
VALUES (12, 'I', NULL);
```

```
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (1, 1);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (2, 2);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (3, 3);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (4, 4);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (5, 5);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (6, 6);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (7, 7);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (8, 8);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (9, 9);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (10, 10);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (11, 11);
INSERT INTO `mydb`.`WAREHOUSE` (`CODE`, `SUBREGION_ID`) VALUES (12, 12);
```

```
INSERT INTO `mydb`.`BOOKS` (`ISBN`, `TITLE`, `PRICE`) VALUES (1, 'book1', '12');
INSERT INTO `mydb`.`BOOKS` (`ISBN`, `TITLE`, `PRICE`) VALUES (2, 'book2', '13');
INSERT INTO `mydb`.`BOOKS` (`ISBN`, `TITLE`, `PRICE`) VALUES (3, 'book3', '25');
INSERT INTO `mydb`.`BOOKS` (`ISBN`, `TITLE`, `PRICE`) VALUES (4, 'book4', '40');
INSERT INTO `mydb`.`BOOKS` (`ISBN`, `TITLE`, `PRICE`) VALUES (5, 'book5', '23.5');
```

```
INSERT INTO `mydb`.`YEAR` (`YEAR_ID`, `YEAR`) VALUES (1, 2014);
INSERT INTO `mydb`.`YEAR` (`YEAR_ID`, `YEAR`) VALUES (2, 2015);
INSERT INTO `mydb`.`YEAR` (`YEAR_ID`, `YEAR`) VALUES (3, 2015);
INSERT INTO `mydb`.`YEAR` (`YEAR_ID`, `YEAR`) VALUES (4, 2016);
INSERT INTO `mydb`.`YEAR` (`YEAR_ID`, `YEAR`) VALUES (5, 2017);
```

```
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (1, 'jan', 1);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (2, 'jan', 2);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (3, 'jan', 3);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (4, 'jan', 4);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (5, 'feb', 1);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (6, 'feb', 2);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (7, 'feb', 3);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (8, 'feb', 4);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (9, 'october', 1);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (10, 'october', 2);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (11, 'october', 3);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (12, 'october', 4);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (13, 'jan', 5);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (14, 'feb', 5);
INSERT INTO `mydb`.`MONTH` (`MONTH_ID`, `MONTH`, `YEAR_ID`) VALUES (15, 'october', 5);
```

```

INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '30', 1);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '1', 1);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '2', 2);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '3', 2);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '4', 3);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '5', 3);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '6', 4);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '7', 4);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '8', 5);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '9', 5);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '10', 6);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '11', 6);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '12', 7);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '13', 7);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '14', 8);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '15', 8);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '16', 9);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '17', 9);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '18', 10);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '19', 10);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '20', 11);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '21', 11);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '22', 12);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '23', 12);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '24', 13);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '25', 13);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '26', 14);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '27', 14);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (23, '28', 15);
INSERT INTO `mydb`.`DAY` (`NUM_DAY`, `DAY_ID`, `MONTH_ID`) VALUES (24, '29', 15);

```

```

INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (100, 30, 2, 1, '1');
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (200, 10, 1, 2, '2');
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (300, 11, 2, 3, '3');
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (400, 12, 3, 4, '4');
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (110, 13, 4, 5, '5');
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (120, 14, 5, 6, '6');

```

```
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (130, 15, 1, 7, '7');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (140, 16, 2, 8, '8');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (150, 1, 3, 9, '9');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (160, 2, 4, 10, '10');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (170, 3, 5, 11, '11');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (180, 4, 1, 12, '12');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (190, 5, 2, 1, '13');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (210, 6, 3, 2, '14');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (250, 7, 4, 3, '15');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (500, 8, 5, 4, '16');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (600, 9, 1, 5, '17');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (700, 23, 2, 6, '18');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (800, 24, 3, 7, '19');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (900, 25, 4, 8, '20');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (550, 26, 5, 9, '21');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (650, 27, 1, 10, '22');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (750, 28, 2, 11, '23');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (850, 29, 3, 12, '24');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (950, 17, 4, 1, '25');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (310, 18, 5, 2, '26');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (320, 19, 5, 3, '27');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (330, 20, 5, 4, '28');
```

```
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (350, 21, 5, 5, '29');  
INSERT INTO `mydb`.`FACTS_TICKET` (`SELL_BY_PRODUCT`, `TICKET_NUMBER`, `BOOKS_ISBN`,  
`WAREHOUSE_CODE`, `DAY_ID`) VALUES (360, 22, 5, 6, '30');
```

QUERIES

1.

```
select distinct  
s.subregion_name as "subregion",  
d.day as "day",  
d.num_day as "num_day",  
p.isbn as "ISBN",  
p.title as "title",  
sum(t.sell_by_product) as "total_sales"  
from  
olap_bookshop.subregion s,  
olap_bookshop.day d,  
olap_bookshop.books p,  
olap_bookshop.facts_ticket t,  
olap_bookshop.warehouse  
where  
t.warehouse_code = warehouse.code and  
warehouse.subregion_id = s.subregion_id and  
t.day_id = d.day_id and  
t.books_isbn = p.isbn  
group by  
s.subregion_name,  
d.day,  
d.num_day,  
p.isbn  
order by num_day asc;
```

2.

```

select distinct
an.year as "year",
p.isbn as "isbn",
p.title as "title",
sum(t.sell_by_product) as "total_sales"
from
olap_bookshop.year an,
olap_bookshop.books p,
olap_bookshop.facts_ticket t
where
t.books_isbn= p.isbn
group by
an.year,
p.isbn
order by
p.isbn asc;

```

3.

```

with ventas_month as (
    select
        r.region_name,
        count(f.ticket_number) as count
    from
        olap_bookshop.region r,
        olap_bookshop.facts_ticket f,
        olap_bookshop.day d,
        olap_bookshop.month m,
        olap_bookshop.warehouse t,
        olap_bookshop.subregion s
    where
        m.month = 'october' and
        f.day_id = d.day_id and
        d.month_id=m.month_id and
        f.warehouse_code = t.code and
        t.subregion_id = s.subregion_id and
        s.region_id = r.region_id
    group by r.region_name)
select region_name, max(count)
from
ventas_month
group by region_name;

```


4.

```
select
r.region_name,
m.month,
avg(f.sell_by_product)
from
olap_bookshop.region r,
olap_bookshop.facts_ticket f,
olap_bookshop.day d,
olap_bookshop.month m,
olap_bookshop.warehouse t,
olap_bookshop.subregion s
where
f.day_id = d.day_id and
d.month_id=m.month_id and
f.warehouse_code= t.code and
t.subregion_id = s.subregion_id and
s.region_id = r.region_id
group by
r.region_name,
m.month
order by
r.region_name;
```

5.

```
with prod1 as (
select
f.ticket_number,
p.title
from
olap_bookshop.books p,
olap_bookshop.facts_ticket f
where
p.isbn = f.books_isbn
group by f.ticket_number, p.title
)
select prod1.title, pr.title
from olap_bookshop.books pr, olap_bookshop.facts_ticket t, prod1
where t.ticket_number = prod1.ticket_number
```