# SQL Script with queries (DML and DDL)

```
CREATE DATABASE  IF NOT EXISTS `olap_bookshop` /*!40100 DEFAULT CHARACTER SET utf8mb4
COLLATE utf8mb4_0900_ai_ci */ /*!80016 DEFAULT ENCRYPTION='N' */;

USE `olap_bookshop`;

-- MySQL dump 10.13  Distrib 8.0.22, for Win64 (x86_64)

--

-- Host: localhost    Database: olap_bookshop

-- ------------------------------------------------------

-- Server version	8.0.22


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;

/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;

/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;

/*!50503 SET NAMES utf8 */;

/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;

/*!40103 SET TIME_ZONE='+00:00' */;

/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;

/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0
*/;

/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;

/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;


--

-- Table structure for table `books`

--


DROP TABLE IF EXISTS `books`;

/*!40101 SET @saved_cs_client     = @@character_set_client */;

/*!50503 SET character_set_client = utf8mb4 */;

CREATE TABLE `books` (

  `ISBN` double NOT NULL,
```

```
  `Title` varchar(100) NOT NULL,
  `Price` double NOT NULL,
  PRIMARY KEY (`ISBN`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;


--
-- Dumping data for table `books`
--


LOCK TABLES `books` WRITE;
/*!40000 ALTER TABLE `books` DISABLE KEYS */;
INSERT INTO `books` VALUES (9702833303,'Rainy day friends',45),(9702833311,'Book 11 for Rainy day',75),(9702833319,'Book 19 day friends',65),(9703746207,'Paradaise Sky by Jose Lansdale',145),(9703859304,'Crazy Rich Asians',1234.5),(9703859312,'Book 12 for Crazy Rich Asians',124.5),(9703859320,'Book 20 Asians',1434.5),(9703859321,'Book 21 for the Bible',1434.5),(9706279301,'A Gentleman Never Keeps Score',384),(9706279309,'Book 9 for A Gentleman',344),(9706279317,'Book 17 Keeps Score',314),(9728304802,'Texas Glory',94.5),(9728304810,'Book 10 for Texas',84.5),(9728304818,'Book 18 Glory',84.5),(9729473006,'The spy and the traitor',200),(9729473014,'Book 14 for the spy and the traitor',240),(9739482708,'Meet Camaro from the Nigh Charter',165.99),(9739482716,'Book 16 for the Nigh Charter',125.99),(9793937405,'Tell me you are mine',23.6),(9793937413,'Book 13 for you',23.6);
/*!40000 ALTER TABLE `books` ENABLE KEYS */;
UNLOCK TABLES;


--
-- Table structure for table `day`
--


DROP TABLE IF EXISTS `day`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `day` (
```

```
  `Num_Day` int DEFAULT NULL,
  `Day_ID` int NOT NULL,
  `Month_ID` int DEFAULT NULL,
  `day` varchar(45) DEFAULT NULL,
  PRIMARY KEY (`Day_ID`),
  KEY `Month_ID` (`Month_ID`),
  CONSTRAINT `day_ibfk_1` FOREIGN KEY (`Month_ID`) REFERENCES `month` (`Month_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;


--
-- Dumping data for table `day`
--


LOCK TABLES `day` WRITE;
/*!40000 ALTER TABLE `day` DISABLE KEYS */;
INSERT INTO `day` VALUES
(1,1,1,'sunday'),(2,2,1,'monday'),(3,3,1,'tuesday'),(4,4,1,'wednesday'),(5,5,1,'thursday'),(6,6,1,'friday'
),(7,7,1,'saturday'),(8,8,1,'sunday'),(9,9,1,'monday'),(10,10,1,'tuesday'),(11,11,1,'wednesday'),(12,12,
1,'thursday'),(13,13,1,'friday'),(14,14,1,'saturday'),(15,15,1,'sunday'),(16,16,1,'monday'),(17,17,1,'tue
sday'),(18,18,1,'wednesday'),(19,19,1,'thursday'),(20,20,1,'friday'),(21,21,1,'saturday'),(22,22,1,'sund
ay'),(23,23,1,'monday'),(24,24,1,'tuesday'),(25,25,1,'wednesday'),(26,26,1,'thursday'),(27,27,1,'friday
'),(28,28,1,'saturday'),(29,29,1,'sunday'),(30,30,1,'monday'),(31,31,1,'tuesday'),(1,32,2,'wednesday'),
(2,33,2,'thursday'),(3,34,2,'friday'),(4,35,2,'saturday'),(5,36,2,'sunday'),(6,37,2,'monday'),(7,38,2,'tue
sday'),(8,39,2,'wednesday'),(9,40,2,'thursday'),(10,41,2,'friday'),(11,42,2,'saturday'),(12,43,2,'sunday'
),(13,44,2,'monday'),(14,45,2,'tuesday'),(15,46,2,'wednesday'),(16,47,2,'thursday'),(17,48,2,'friday'),(
18,49,2,'saturday'),(19,50,2,'sunday'),(20,51,2,'monday'),(21,52,2,'tuesday'),(22,53,2,'wednesday'),(2
3,54,2,'thursday'),(24,55,2,'friday'),(25,56,2,'saturday'),(26,57,2,'sunday'),(27,58,2,'monday'),(28,59,
2,'tuesday'),(1,60,3,'wednesday'),(2,61,3,'thursday'),(3,62,3,'friday'),(4,63,3,'saturday'),(5,64,3,'sund
ay'),(6,65,3,'monday'),(7,66,3,'tuesday'),(8,67,3,'wednesday'),(9,68,3,'thursday'),(10,69,3,'friday'),(11
,70,3,'saturday'),(12,71,3,'sunday'),(13,72,3,'monday'),(14,73,3,'tuesday'),(15,74,3,'wednesday'),(16,
75,3,'thursday'),(17,76,3,'friday'),(18,77,3,'saturday'),(19,78,3,'sunday'),(20,79,3,'monday'),(21,80,3,'
tuesday'),(22,81,3,'wednesday'),(23,82,3,'thursday'),(24,83,3,'friday'),(25,84,3,'saturday'),(26,85,3,'s
unday'),(27,86,3,'monday'),(28,87,3,'tuesday'),(29,88,3,'wednesday'),(30,89,3,'thursday'),(31,90,3,'fri
day'),(1,91,4,'saturday'),(2,92,4,'sunday'),(3,93,4,'monday'),(4,94,4,'tuesday'),(5,95,4,'wednesday'),(6
,96,4,'thursday'),(7,97,4,'friday'),(8,98,4,'saturday'),(9,99,4,'sunday'),(10,100,4,'monday'),(11,101,4,'t
uesday'),(12,102,4,'wednesday'),(13,103,4,'thursday'),(14,104,4,'friday'),(15,105,4,'saturday'),(16,10
6,4,'sunday'),(17,107,4,'monday'),(18,108,4,'tuesday'),(19,109,4,'wednesday'),(20,110,4,'thursday'),(
21,111,4,'friday'),(22,112,4,'saturday'),(23,113,4,'sunday'),(24,114,4,'monday'),(25,115,4,'tuesday'),(
```

26,116,4,'wednesday'),(27,117,4,'thursday'),(28,118,4,'friday'),(29,119,4,'saturday'),(30,120,4,'sunda
y'),(1,121,5,'monday'),(2,122,5,'tuesday'),(3,123,5,'wednesday'),(4,124,5,'thursday'),(5,125,5,'friday')
,(6,126,5,'saturday'),(7,127,5,'sunday'),(8,128,5,'monday'),(9,129,5,'tuesday'),(10,130,5,'wednesday')
,(11,131,5,'thursday'),(12,132,5,'friday'),(13,133,5,'saturday'),(14,134,5,'sunday'),(15,135,5,'monday'
),(16,136,5,'tuesday'),(17,137,5,'wednesday'),(18,138,5,'thursday'),(19,139,5,'friday'),(20,140,5,'satu
rday'),(21,141,5,'sunday'),(22,142,5,'monday'),(23,143,5,'tuesday'),(24,144,5,'wednesday'),(25,145,5
,'thursday'),(26,146,5,'friday'),(27,147,5,'saturday'),(28,148,5,'sunday'),(29,149,5,'monday'),(30,150,
5,'tuesday'),(31,151,5,'wednesday'),(1,152,6,'thursday'),(2,153,6,'friday'),(3,154,6,'saturday'),(4,155,
6,'sunday'),(5,156,6,'monday'),(6,157,6,'tuesday'),(7,158,6,'wednesday'),(8,159,6,'thursday'),(9,160,6
,'friday'),(10,161,6,'saturday'),(11,162,6,'sunday'),(12,163,6,'monday'),(13,164,6,'tuesday'),(14,165,6,
'wednesday'),(15,166,6,'thursday'),(16,167,6,'friday'),(17,168,6,'saturday'),(18,169,6,'sunday'),(19,17
0,6,'monday'),(20,171,6,'tuesday'),(21,172,6,'wednesday'),(22,173,6,'thursday'),(23,174,6,'friday'),(2
4,175,6,'saturday'),(25,176,6,'sunday'),(26,177,6,'monday'),(27,178,6,'tuesday'),(28,179,6,'wednesda
y'),(29,180,6,'thursday'),(30,181,6,'friday'),(1,182,7,'saturday'),(2,183,7,'sunday'),(3,184,7,'monday'),
(4,185,7,'tuesday'),(5,186,7,'wednesday'),(6,187,7,'thursday'),(7,188,7,'friday'),(8,189,7,'saturday'),(9
,190,7,'sunday'),(10,191,7,'monday'),(11,192,7,'tuesday'),(12,193,7,'wednesday'),(13,194,7,'thursday
'),(14,195,7,'friday'),(15,196,7,'saturday'),(16,197,7,'sunday'),(17,198,7,'monday'),(18,199,7,'tuesday'
),(19,200,7,'wednesday'),(20,201,7,'thursday'),(21,202,7,'friday'),(22,203,7,'saturday'),(23,204,7,'sun
day'),(24,205,7,'monday'),(25,206,7,'tuesday'),(26,207,7,'wednesday'),(27,208,7,'thursday'),(28,209,
7,'friday'),(29,210,7,'saturday'),(30,211,7,'sunday'),(31,212,7,'monday'),(1,213,8,'tuesday'),(2,214,8,'
wednesday'),(3,215,8,'thursday'),(4,216,8,'friday'),(5,217,8,'saturday'),(6,218,8,'sunday'),(7,219,8,'m
onday'),(8,220,8,'tuesday'),(9,221,8,'wednesday'),(10,222,8,'thursday'),(11,223,8,'friday'),(12,224,8,'
saturday'),(13,225,8,'sunday'),(14,226,8,'monday'),(15,227,8,'tuesday'),(16,228,8,'wednesday'),(17,2
29,8,'thursday'),(18,230,8,'friday'),(19,231,8,'saturday'),(20,232,8,'sunday'),(21,233,8,'monday'),(22,
234,8,'tuesday'),(23,235,8,'wednesday'),(24,236,8,'thursday'),(25,237,8,'friday'),(26,238,8,'saturday')
,(27,239,8,'sunday'),(28,240,8,'monday'),(29,241,8,'tuesday'),(30,242,8,'wednesday'),(31,243,8,'thur
sday'),(1,244,9,'friday'),(2,245,9,'saturday'),(3,246,9,'sunday'),(4,247,9,'monday'),(5,248,9,'tuesday'),
(6,249,9,'wednesday'),(7,250,9,'thursday'),(8,251,9,'friday'),(9,252,9,'saturday'),(10,253,9,'sunday'),(
11,254,9,'monday'),(12,255,9,'tuesday'),(13,256,9,'wednesday'),(14,257,9,'thursday'),(15,258,9,'frida
y'),(16,259,9,'saturday'),(17,260,9,'sunday'),(18,261,9,'monday'),(19,262,9,'tuesday'),(20,263,9,'wed
nesday'),(21,264,9,'thursday'),(22,265,9,'friday'),(23,266,9,'saturday'),(24,267,9,'sunday'),(25,268,9,'
monday'),(26,269,9,'tuesday'),(27,270,9,'wednesday'),(28,271,9,'thursday'),(29,272,9,'friday'),(30,27
3,9,'saturday'),(1,274,10,'sunday'),(2,275,10,'monday'),(3,276,10,'tuesday'),(4,277,10,'wednesday'),(
5,278,10,'thursday'),(6,279,10,'friday'),(7,280,10,'saturday'),(8,281,10,'sunday'),(9,282,10,'monday'),
(10,283,10,'tuesday'),(11,284,10,'wednesday'),(12,285,10,'thursday'),(13,286,10,'friday'),(14,287,10,'
saturday'),(15,288,10,'sunday'),(16,289,10,'monday'),(17,290,10,'tuesday'),(18,291,10,'wednesday'),(
19,292,10,'thursday'),(20,293,10,'friday'),(21,294,10,'saturday'),(22,295,10,'sunday'),(23,296,10,'mo
nday'),(24,297,10,'tuesday'),(25,298,10,'wednesday'),(26,299,10,'thursday'),(27,300,10,'friday'),(28,3
01,10,'saturday'),(29,302,10,'sunday'),(30,303,10,'monday'),(31,304,10,'tuesday'),(1,305,11,'wednes
day'),(2,306,11,'thursday'),(3,307,11,'friday'),(4,308,11,'saturday'),(5,309,11,'sunday'),(6,310,11,'mo
nday'),(7,311,11,'tuesday'),(8,312,11,'wednesday'),(9,313,11,'thursday'),(10,314,11,'friday'),(11,315,
11,'saturday'),(12,316,11,'sunday'),(13,317,11,'monday'),(14,318,11,'tuesday'),(15,319,11,'wednesda
y'),(16,320,11,'thursday'),(17,321,11,'friday'),(18,322,11,'saturday'),(19,323,11,'sunday'),(20,324,11,'
monday'),(21,325,11,'tuesday'),(22,326,11,'wednesday'),(23,327,11,'thursday'),(24,328,11,'friday'),(2
5,329,11,'saturday'),(26,330,11,'sunday'),(27,331,11,'monday'),(28,332,11,'tuesday'),(29,333,11,'we
dnesday'),(30,334,11,'thursday'),(1,335,12,'friday'),(2,336,12,'saturday'),(3,337,12,'sunday'),(4,338,1
2,'monday'),(5,339,12,'tuesday'),(6,340,12,'wednesday'),(7,341,12,'thursday'),(8,342,12,'friday'),(9,3
43,12,'saturday'),(10,344,12,'sunday'),(11,345,12,'monday'),(12,346,12,'tuesday'),(13,347,12,'wedne

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sday'),(14,348,12,'thursday'),(15,349,12,'friday'),(16,350,12,'saturday'),(17,351,12,'sunday'),(18,352,
12,'monday'),(19,353,12,'tuesday'),(20,354,12,'wednesday'),(21,355,12,'thursday'),(22,356,12,'friday
'),(23,357,12,'saturday'),(24,358,12,'sunday'),(25,359,12,'monday'),(26,360,12,'tuesday'),(27,361,12,'
wednesday'),(28,362,12,'thursday'),(29,363,12,'friday'),(30,364,12,'saturday'),(31,365,12,'sunday');

/*!40000 ALTER TABLE `day` ENABLE KEYS */;

UNLOCK TABLES;


--

-- Table structure for table `facts_ticket`

--


DROP TABLE IF EXISTS `facts_ticket`;

/*!40101 SET @saved_cs_client     = @@character_set_client */;

/*!50503 SET character_set_client = utf8mb4 */;

CREATE TABLE `facts_ticket` (

  `Sell_By_Product` double DEFAULT NULL,

  `Ticket_Number` int DEFAULT NULL,

  `Books_ISBN` double DEFAULT NULL,

  `WareHouse_Code` int DEFAULT NULL,

  `Day_ID` int DEFAULT NULL,

  KEY `WareHouse_Code` (`WareHouse_Code`),

  KEY `Day_ID` (`Day_ID`),

  KEY `facts_ticket_ibfk_1_idx` (`Books_ISBN`),

  CONSTRAINT `facts_ticket_ibfk_1` FOREIGN KEY (`Books_ISBN`) REFERENCES `books` (`ISBN`),

  CONSTRAINT `facts_ticket_ibfk_2` FOREIGN KEY (`WareHouse_Code`) REFERENCES `warehouse`
(`Code`),

  CONSTRAINT `facts_ticket_ibfk_3` FOREIGN KEY (`Day_ID`) REFERENCES `day` (`Day_ID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;

/*!40101 SET character_set_client = @saved_cs_client */;


--

-- Dumping data for table `facts_ticket`
```

```
--

LOCK TABLES `facts_ticket` WRITE;
/*!40000 ALTER TABLE `facts_ticket` DISABLE KEYS */;
INSERT INTO `facts_ticket` VALUES
(275,1,9703859312,14,52),(48,1,9703746207,10,345),(15,1,9739482716,7,314),(56,1,9703746215,17,50),(270,1,9793937405,37,6),(96,2,9703746207,31,358),(84,2,9703746215,8,223),(16,2,9703746207,23,91),(166,3,9793937413,24,142),(180,3,9706279301,25,123),(14,3,9793937413,23,339),(287,3,9702833319,29,35),(56,3,9728304802,22,167),(90,4,9706279301,13,64),(581,4,9793937413,18,219),(637,6,9729473014,14,129),(74,6,9729473006,16,60),(210,7,9706279301,12,7),(84,7,9728304810,24,329),(225,7,9793937405,38,344),(105,7,9739482716,10,328),(840,8,9703859304,32,239),(225,8,9793937405,6,66),(222,8,9729473006,30,44),(198,9,9703859320,10,355),(246,9,9702833319,13,54),(240,10,9703859304,37,296),(27,10,9703859321,18,49),(364,11,9729473014,6,233),(35,11,9728304818,5,88),(72,11,9728304810,36,95),(112,11,9703746207,21,341),(30,11,9706279301,11,217),(42,13,9706279317,27,80),(246,13,9702833319,28,206),(84,13,9706279317,34,305);
/*!40000 ALTER TABLE `facts_ticket` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `month`
--

DROP TABLE IF EXISTS `month`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `month` (
  `Month_ID` int NOT NULL,
  `Month` varchar(10) NOT NULL,
  `Year_ID` int DEFAULT NULL,
  PRIMARY KEY (`Month_ID`),
  KEY `Year_ID` (`Year_ID`),
  CONSTRAINT `month_ibfk_1` FOREIGN KEY (`Year_ID`) REFERENCES `year` (`Year_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
-- Dumping data for table `month`
--

LOCK TABLES `month` WRITE;
/*!40000 ALTER TABLE `month` DISABLE KEYS */;
INSERT INTO `month` VALUES
(1,'january',1),(2,'february',1),(3,'march',1),(4,'april',1),(5,'may',1),(6,'june',1),(7,'july',1),(8,'august',1)
,(9,'september',1),(10,'october',1),(11,'november',1),(12,'december',1);
/*!40000 ALTER TABLE `month` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `region`
--

DROP TABLE IF EXISTS `region`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `region` (
  `Region_ID` int NOT NULL,
  `Region_name` varchar(32) NOT NULL,
  PRIMARY KEY (`Region_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `region`
--

LOCK TABLES `region` WRITE;
```

```
/*!40000 ALTER TABLE `region` DISABLE KEYS */;
INSERT INTO `region` VALUES (1,'america'),(2,'europa'),(3,'asia'),(4,'africa'),(5,'oceania');
/*!40000 ALTER TABLE `region` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `subregion`
--

DROP TABLE IF EXISTS `subregion`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `subregion` (
  `Subregion_ID` int NOT NULL,
  `Region_ID` int DEFAULT NULL,
  `SubRegion_name` varchar(32) NOT NULL,
  PRIMARY KEY (`Subregion_ID`),
  KEY `Region_ID` (`Region_ID`),
  CONSTRAINT `subregion_ibfk_1` FOREIGN KEY (`Region_ID`) REFERENCES `region` (`Region_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `subregion`
--

LOCK TABLES `subregion` WRITE;
/*!40000 ALTER TABLE `subregion` DISABLE KEYS */;
INSERT INTO `subregion` VALUES (1,1,'north america'),(2,1,'central america'),(3,1,'caribe'),(4,1,'south
america'),(5,2,'north of europe'),(6,2,'south of europe'),(7,2,'western europe'),(8,2,'eastern
europe'),(9,3,'northern of asia'),(10,3,'southern asia'),(11,3,'eastern asia'),(12,3,'central
```

```
asia'),(13,3,'southeast asia'),(14,4,'north africa'),(15,4,'southern africa'),(16,4,'west africa'),(17,4,'east
africa'),(18,4,'central africa'),(19,5,'australia'),(20,5,'melanesia'),(21,5,'micronesia'),(22,5,'polynesia');

/*!40000 ALTER TABLE `subregion` ENABLE KEYS */;

UNLOCK TABLES;


--

-- Table structure for table `warehouse`

--


DROP TABLE IF EXISTS `warehouse`;

/*!40101 SET @saved_cs_client     = @@character_set_client */;

/*!50503 SET character_set_client = utf8mb4 */;

CREATE TABLE `warehouse` (

  `Code` int NOT NULL,

  `SubRegion_ID` int DEFAULT NULL,

  PRIMARY KEY (`Code`),

  KEY `SubRegion_ID` (`SubRegion_ID`),

  CONSTRAINT `warehouse_ibfk_1` FOREIGN KEY (`SubRegion_ID`) REFERENCES `subregion`
(`Subregion_ID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;

/*!40101 SET character_set_client = @saved_cs_client */;


--

-- Dumping data for table `warehouse`

--


LOCK TABLES `warehouse` WRITE;

/*!40000 ALTER TABLE `warehouse` DISABLE KEYS */;

INSERT INTO `warehouse` VALUES
(1,1),(2,1),(3,2),(4,2),(5,3),(6,3),(7,4),(8,4),(9,5),(10,5),(11,6),(12,6),(13,7),(14,7),(15,8),(16,8),(17,9),(1
8,9),(19,10),(20,10),(21,11),(22,11),(23,12),(24,12),(25,13),(26,13),(27,14),(28,14),(29,15),(30,15),(31,
16),(32,16),(33,17),(34,17),(35,18),(36,18),(37,19),(38,19),(39,20),(40,20),(41,21),(42,21),(43,22),(44,
22);
```

```
/*!40000 ALTER TABLE `warehouse` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `year`
--

DROP TABLE IF EXISTS `year`;
/*!40101 SET @saved_cs_client     = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `year` (
  `Year_ID` int NOT NULL,
  `Year` year NOT NULL,
  PRIMARY KEY (`Year_ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `year`
--

LOCK TABLES `year` WRITE;
/*!40000 ALTER TABLE `year` DISABLE KEYS */;
INSERT INTO `year` VALUES (1,2017);
/*!40000 ALTER TABLE `year` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Dumping events for database 'olap_bookshop'
--
```

```
--
-- Dumping routines for database 'olap_bookshop'
--
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;

-- Dump completed on 2022-11-01 16:55:11
```

# SQL Script with queries (DML and DDL)

```sql
-- 1.- Obtain the total daily sales by book and subregion SUBREGION, DAY, ISBN, TITLE
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;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| subregion | day | num_day | ISBN | title | total_sales |
|---|---|---|---|---|---|
| east africa | wednesday | 1 | 9706279317 | Book 17 Keeps Score | 84 |
| central asia | saturday | 1 | 9703746207 | Paradaise Sky by Jose Lansdale | 16 |
| eastern europe | wednesday | 1 | 9729473006 | The spy and the traitor | 74 |
| southeast asia | wednesday | 3 | 9706279301 | A Gentleman Never Keeps Score | 180 |
| southern africa | saturday | 4 | 9702833319 | Book 19 day friends | 287 |
| central asia | tuesday | 5 | 9793937413 | Book 13 for you | 14 |
| central africa | wednesday | 5 | 9728304810 | Book 10 for Texas | 72 |
| south of europe | saturday | 5 | 9706279301 | A Gentleman Never Keeps Score | 30 |
| western europe | sunday | 5 | 9706279301 | A Gentleman Never Keeps Score | 90 |
| australia | friday | 6 | 9793937405 | Tell me you are mine | 270 |
| south of europe | saturday | 7 | 9706279301 | A Gentleman Never Keeps Score | 210 |
| northern of asia | monday | 7 | 9793937413 | Book 13 for you | 581 |

```sql
-- 2.- Obtain annual sales per book YEAR, ISBN, TITLE, SALES_AMOUNT
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;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| year | isbn | title | total_sales |
|---|---|---|---|
| 2017 | 9702833319 | Book 19 day friends | 779 |
| 2017 | 9703746207 | Paradaise Sky by Jose Lansdale | 272 |
| 2017 | 9703859304 | Crazy Rich Asians | 1080 |
| 2017 | 9703859312 | Book 12 for Crazy Rich Asians | 275 |
| 2017 | 9703859320 | Book 20  Asians | 198 |
| 2017 | 9703859321 | Book 21  for the Bible | 27 |
| 2017 | 9706279301 | A Gentleman Never Keeps Score | 510 |
| 2017 | 9706279317 | Book 17 Keeps Score | 126 |
| 2017 | 9728304802 | Texas Glory | 56 |
| 2017 | 9728304810 | Book 10 for Texas | 156 |
| 2017 | 9728304818 | Book 18 Glory | 35 |

```sql
-- 3.- Obtain which region had the most transactions during Oc
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;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| region_name | max(count) |
|---|---|
| oceania | 1 |

```
-- 4.- Obtain the average of the sale per ticket (invoice) p
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;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| region_name | month | avg(f.sell_by_product) |
|---|---|---|
| africa | april | 72 |
| africa | august | 840 |
| africa | december | 96 |
| africa | february | 254.5 |
| africa | july | 246 |
| africa | march | 42 |
| africa | november | 84 |
| america | august | 224 |
| america | march | 130 |

```sql
-- 5.- Get which books are bought together more frequently by OLAP (SQL)
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
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

| title | title |
|---|---|
| Book 13 for you | Rainy day friends |
| Texas Glory | Rainy day friends |
| A Gentleman Never Keeps Score | Rainy day friends |
| Book 19 day friends | Rainy day friends |
| Book 13 for you | Book 11 for Rainy day |
| Texas Glory | Book 11 for Rainy day |
| A Gentleman Never Keeps Score | Book 11 for Rainy day |
| Book 19 day friends | Book 11 for Rainy day |
| Book 13 for you | Book 19 day friends |
| Texas Glory | Book 19 day friends |
| A Gentleman Never Keeps Score | Book 19 day friends |
| Book 19 day friends | Book 19 day friends |
| Book 13 for you | Paradaise Sky by Jos... |
| Texas Glory | Paradaise Sky by Jos... |
| A Gentleman Never Keeps Score | Paradaise Sky by Jos... |
| Book 19 day friends | Paradaise Sky by Jos... |
| Book 13 for you | Crazy Rich Asians |
| Texas Glory | Crazy Rich Asians |
| A Gentleman Never Keeps Score | Crazy Rich Asians |