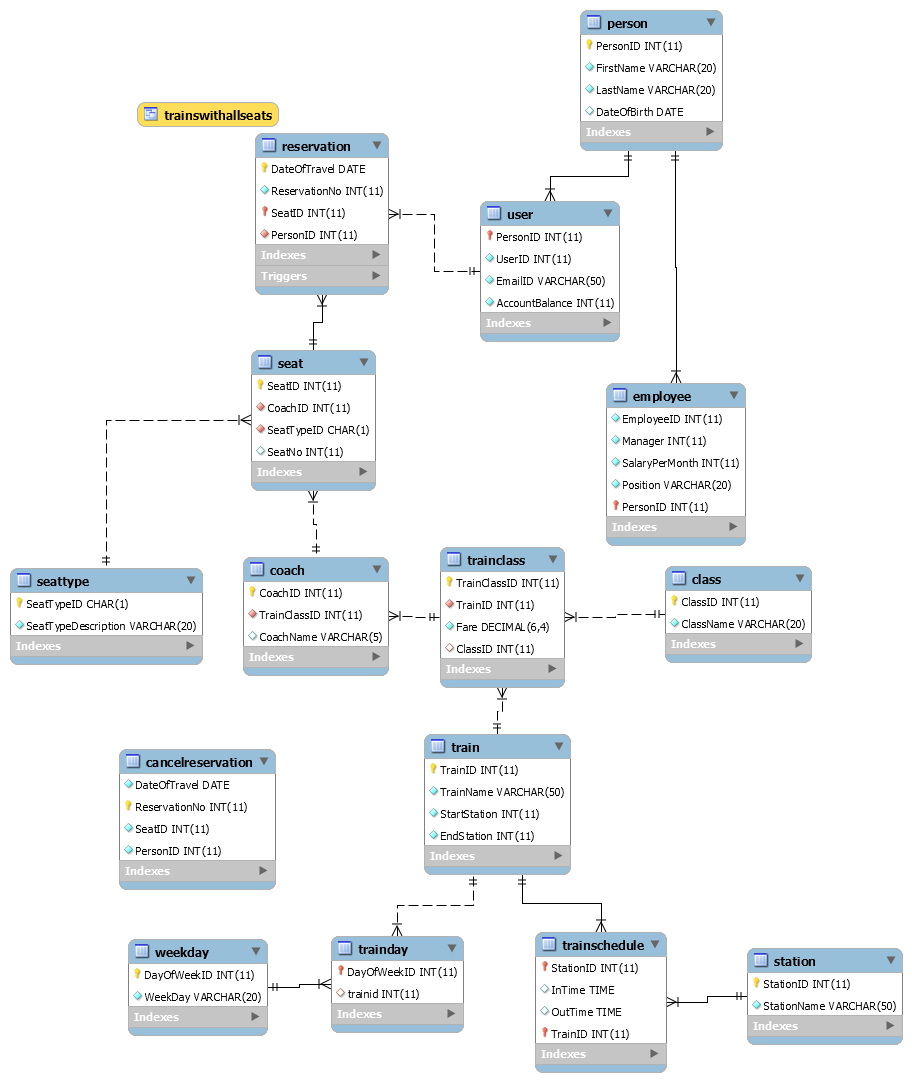
**Train Database**

This database is created for storing and manipulating information about train database. This table will store all the information about users, trains , and their schedule. It will help in quick retrieval of the records from database and is user friendly.

A person can find best fit train from his journey route and book a seat for him. Employee can reserve seat for him . Admins will add the trains and coaches and seats for new train or edit the previous.



Stored procedures and triggers

Stored procedure

**findMostReservedTrain**

this stored procedure will find most reserved train in database and it will help in easy management of train according to traffic

CREATE DEFINER=`root`@`localhost` PROCEDURE `findMostReservedTrain`()

BEGIN

Select TrainName,count(v.SeatID) from trainswithallseats v

join train t on t.TrainID=v.TrainID

join reservation r on r.SeatID=v.SeatID

group by v.trainid;

END

**findTrainsFor**

this procedure will help help the users and admin and employess to find best fit trains for them

CREATE DEFINER=`root`@`localhost` PROCEDURE `findTrainsFor`(IN fromStation varchar(50) ,IN toStation varchar(50))

BEGIN

select StationId into @fromStation from station where StationName=fromStation;

select StationId into @toStation from station where StationName=toStation;

CREATE TEMPORARY TABLE fromTrains select Trainid,inTime from trainschedule where StationID=@fromStation;

CREATE TEMPORARY TABLE toTrains select DISTINCT (Trainid),inTime from trainschedule where StationID=@toStation;

select \* from fromTrains;

select \* from toTrains;

select t.Trainid from fromTrains f join toTrains t on f.TrainID = t.Trainid where timediff(t.InTime,f.intime)>0;

DROP Table fromTrains;

DROP Table toTrains;

END

**ReservationHistoryOfUser**

This procedure will find the best consumers of service provided hence it will be helpful for rewarding best consumer .

CREATE DEFINER=`root`@`localhost` PROCEDURE `ReservationHistoryOfUser`(In UserId int)

BEGIN

Select TrainName,CoachName,SeatNo,DateOfTravel,ReservationNo,'Reserved' from TrainsWithAllSeats v

join train t on v.trainId=t.trainID

join coach c on v.coachID=c.coachID

join seat s on s.SeatId=v.seatid

join reservation r on r.SeatID = v.SeatId

where r.userid = Userid

union

Select TrainName,CoachName,SeatNo,DateOfTravel,ReservationNo,'Cancelled' from TrainsWithAllSeats v

join train t on v.trainId=t.trainID

join coach c on v.coachID=c.coachID

join seat s on s.SeatId=v.seatid

join cancelreservation cr on cr.SeatID = v.SeatId

where cr.userid = Userid;

END

**ReserveSeat**

This procedure will save a seat for user so that he can travel comfortably

In given time and class and train provided

CREATE DEFINER=`root`@`localhost` PROCEDURE `ReserveSeat`(IN trainID varchar(50) ,In UserId int,IN Class varchar(10), in TravelDate date )

BEGIN

START TRANSACTION;

Select SeatId into @reserveSeat

from TrainsWithAllSeats v

join class c on v.classID = c.classid

where c.ClassName =Class

and v.TrainID=trainID

and v.SeatId not in (select seatid from reservation where DateOfTravel=TravelDate)

Limit 1;

if (@reserveSeat is not null) then

insert into reservation(DateOfTravel,ReservationNo,SeatId,PersonID)

values(TravelDate,FLOOR(RAND()\*(9999999-1111111+1))+11111111,@reseveSeat,UserId);

else

select 'no seats available';

end if;

COMMIT;

END

**Trigger**

This trigger will log the information when user cancels his record from reservation

CREATE DEFINER=`root`@`localhost` TRIGGER `train\_databse`.`CANCEL\_RESERVATION` AFTER DELETE ON `train\_databse`.`reservation` FOR EACH ROW BEGIN INSERT INTO cancelreservation VALUES(OLD.DATEOFTRAVEL,OLD.RESERVATIONNO,OLD.SeatID,OLD.PersonID); END

**View**

This view will be used for showing all the seats in all the coach according to all the class and train

CREATE

ALGORITHM = UNDEFINED

DEFINER = `root`@`localhost`

SQL SECURITY DEFINER

VIEW `trainswithallseats` AS

SELECT

`t`.`TrainID` AS `TrainID`,

`tc`.`ClassID` AS `ClassId`,

`c`.`CoachID` AS `coachID`,

`s`.`SeatID` AS `SeatId`

FROM

((((`train` `t`

JOIN `trainclass` `tc` ON ((`t`.`TrainID` = `tc`.`TrainID`)))

JOIN `class` `cl` ON ((`tc`.`ClassID` = `cl`.`ClassID`)))

JOIN `coach` `c` ON ((`c`.`TrainClassID` = `tc`.`TrainClassID`)))

JOIN `seat` `s` ON ((`s`.`CoachID` = `c`.`CoachID`)))

Users

Admin – Admin123

This user will be head of all the database and monitor the database

He can manipulate all the data according to his requirement

He has all the access to the database

Employee - Employee123

This user will book a seat for user according to his needs

This users will also have access for all the tables except employee to prevent his from accessing

Other employee records

user - user123

this user can see all the train best fit for him he has select privileges on all the tables except employee

**Final db dump**

CREATE DATABASE IF NOT EXISTS `train\_databse` /\*!40100 DEFAULT CHARACTER SET utf8 \*/;

USE `train\_databse`;

-- MySQL dump 10.13 Distrib 5.7.12, for Win64 (x86\_64)

--

-- Host: 127.0.0.1 Database: train\_databse

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

-- Server version 5.7.15-log

/\*!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 \*/;

/\*!40101 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 `cancelreservation`

--

DROP TABLE IF EXISTS `cancelreservation`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `cancelreservation` (

`DateOfTravel` date NOT NULL,

`ReservationNo` int(11) NOT NULL,

`SeatID` int(11) NOT NULL,

`PersonID` int(11) NOT NULL,

PRIMARY KEY (`ReservationNo`),

KEY `IX\_Relationship29` (`SeatID`),

KEY `IX\_Relationship34` (`PersonID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `cancelreservation`

--

LOCK TABLES `cancelreservation` WRITE;

/\*!40000 ALTER TABLE `cancelreservation` DISABLE KEYS \*/;

/\*!40000 ALTER TABLE `cancelreservation` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `class`

--

DROP TABLE IF EXISTS `class`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `class` (

`ClassID` int(11) NOT NULL AUTO\_INCREMENT,

`ClassName` varchar(20) NOT NULL,

PRIMARY KEY (`ClassID`)

) ENGINE=InnoDB AUTO\_INCREMENT=5 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `class`

--

LOCK TABLES `class` WRITE;

/\*!40000 ALTER TABLE `class` DISABLE KEYS \*/;

INSERT INTO `class` VALUES (1,'3A'),(2,'2A'),(3,'1A'),(4,'SL');

/\*!40000 ALTER TABLE `class` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `coach`

--

DROP TABLE IF EXISTS `coach`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `coach` (

`CoachID` int(11) NOT NULL AUTO\_INCREMENT,

`TrainClassID` int(11) NOT NULL,

`CoachName` varchar(5) DEFAULT NULL,

PRIMARY KEY (`CoachID`),

KEY `IX\_Relationship27` (`TrainClassID`),

CONSTRAINT `has a` FOREIGN KEY (`TrainClassID`) REFERENCES `trainclass` (`TrainClassID`)

) ENGINE=InnoDB AUTO\_INCREMENT=1013 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `coach`

--

LOCK TABLES `coach` WRITE;

/\*!40000 ALTER TABLE `coach` DISABLE KEYS \*/;

INSERT INTO `coach` VALUES (1001,10001,'S1'),(1002,10001,'S2'),(1003,10002,'S3'),(1004,10002,'S4'),(1005,10003,'S5'),(1006,10004,'S6'),(1007,10005,'S1'),(1008,10005,'S2'),(1009,10006,'S3'),(1010,10006,'S4'),(1011,10007,'S5'),(1012,10008,'S6');

/\*!40000 ALTER TABLE `coach` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `employee`

--

DROP TABLE IF EXISTS `employee`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `employee` (

`EmployeeID` int(11) NOT NULL,

`Manager` int(11) NOT NULL,

`SalaryPerMonth` int(11) NOT NULL,

`Position` varchar(20) NOT NULL,

`PersonID` int(11) NOT NULL,

PRIMARY KEY (`PersonID`),

CONSTRAINT `Is\_a\_Relationship2` FOREIGN KEY (`PersonID`) REFERENCES `person` (`PersonID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `employee`

--

LOCK TABLES `employee` WRITE;

/\*!40000 ALTER TABLE `employee` DISABLE KEYS \*/;

INSERT INTO `employee` VALUES (10,10,9000,'CEO',10),(13,11,3000,'Developer',16),(12,11,3000,'Manager',18),(13,11,3000,'Cashier',19),(11,10,7000,'President',22);

/\*!40000 ALTER TABLE `employee` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `person`

--

DROP TABLE IF EXISTS `person`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `person` (

`PersonID` int(11) NOT NULL AUTO\_INCREMENT,

`FirstName` varchar(20) NOT NULL,

`LastName` varchar(20) NOT NULL,

`DateOfBirth` date DEFAULT NULL,

PRIMARY KEY (`PersonID`)

) ENGINE=InnoDB AUTO\_INCREMENT=23 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `person`

--

LOCK TABLES `person` WRITE;

/\*!40000 ALTER TABLE `person` DISABLE KEYS \*/;

INSERT INTO `person` VALUES (10,'Atul','Takekar','1991-08-02'),(11,'Mihir','Patil','1999-12-30'),(12,'john','Lennon','2015-08-12'),(13,'Skill','Rex','1978-05-11'),(14,'Hard','well','1989-06-14'),(15,'Karan','Thevar','1998-02-16'),(16,'Brad','Pitt','1956-07-02'),(18,'T','Mass','1994-02-25'),(19,'Pratik','Patre','1986-08-26'),(21,'DJ','AViCII','1984-08-23'),(22,'DJ','AViCII','1984-08-23');

/\*!40000 ALTER TABLE `person` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `reservation`

--

DROP TABLE IF EXISTS `reservation`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `reservation` (

`DateOfTravel` date NOT NULL,

`ReservationNo` int(11) NOT NULL,

`SeatID` int(11) NOT NULL,

`PersonID` int(11) NOT NULL,

PRIMARY KEY (`DateOfTravel`,`SeatID`),

KEY `IX\_Relationship29` (`SeatID`),

KEY `IX\_Relationship34` (`PersonID`),

CONSTRAINT `Has\_a\_Relationship10` FOREIGN KEY (`PersonID`) REFERENCES `user` (`PersonID`),

CONSTRAINT `contains` FOREIGN KEY (`SeatID`) REFERENCES `seat` (`SeatID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `reservation`

--

LOCK TABLES `reservation` WRITE;

/\*!40000 ALTER TABLE `reservation` DISABLE KEYS \*/;

INSERT INTO `reservation` VALUES ('2016-01-01',16426580,121,10),('2016-01-26',18533905,121,10),('2016-12-12',23123,101,10);

/\*!40000 ALTER TABLE `reservation` ENABLE KEYS \*/;

UNLOCK TABLES;

/\*!50003 SET @saved\_cs\_client = @@character\_set\_client \*/ ;

/\*!50003 SET @saved\_cs\_results = @@character\_set\_results \*/ ;

/\*!50003 SET @saved\_col\_connection = @@collation\_connection \*/ ;

/\*!50003 SET character\_set\_client = utf8 \*/ ;

/\*!50003 SET character\_set\_results = utf8 \*/ ;

/\*!50003 SET collation\_connection = utf8\_general\_ci \*/ ;

/\*!50003 SET @saved\_sql\_mode = @@sql\_mode \*/ ;

/\*!50003 SET sql\_mode = 'STRICT\_TRANS\_TABLES,STRICT\_ALL\_TABLES,NO\_ZERO\_IN\_DATE,NO\_ZERO\_DATE,ALLOW\_INVALID\_DATES,ERROR\_FOR\_DIVISION\_BY\_ZERO,TRADITIONAL,NO\_AUTO\_CREATE\_USER,NO\_ENGINE\_SUBSTITUTION' \*/ ;

DELIMITER ;;

/\*!50003 CREATE\*/ /\*!50017 DEFINER=`root`@`localhost`\*/ /\*!50003 TRIGGER `train\_databse`.`CANCEL\_RESERVATION`

AFTER DELETE ON `train\_databse`.`reservation`

FOR EACH ROW

BEGIN

INSERT INTO cancelreservation VALUES(OLD.DATEOFTRAVEL,OLD.RESERVATIONNO,OLD.SeatID,OLD.PersonID);

END \*/;;

DELIMITER ;

/\*!50003 SET sql\_mode = @saved\_sql\_mode \*/ ;

/\*!50003 SET character\_set\_client = @saved\_cs\_client \*/ ;

/\*!50003 SET character\_set\_results = @saved\_cs\_results \*/ ;

/\*!50003 SET collation\_connection = @saved\_col\_connection \*/ ;

--

-- Table structure for table `seat`

--

DROP TABLE IF EXISTS `seat`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `seat` (

`SeatID` int(11) NOT NULL AUTO\_INCREMENT,

`CoachID` int(11) NOT NULL,

`SeatTypeID` char(1) NOT NULL,

`SeatNo` int(11) DEFAULT NULL,

PRIMARY KEY (`SeatID`),

KEY `is type of` (`SeatTypeID`),

KEY `contain a` (`CoachID`),

CONSTRAINT `contain a` FOREIGN KEY (`CoachID`) REFERENCES `coach` (`CoachID`),

CONSTRAINT `is type of` FOREIGN KEY (`SeatTypeID`) REFERENCES `seattype` (`SeatTypeID`)

) ENGINE=InnoDB AUTO\_INCREMENT=149 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `seat`

--

LOCK TABLES `seat` WRITE;

/\*!40000 ALTER TABLE `seat` DISABLE KEYS \*/;

INSERT INTO `seat` VALUES (101,1001,'U',1),(102,1001,'L',2),(103,1001,'M',3),(104,1001,'U',4),(105,1001,'L',5),(106,1002,'U',1),(107,1002,'L',2),(108,1002,'M',3),(109,1002,'U',4),(110,1002,'L',5),(111,1003,'U',1),(112,1003,'M',2),(113,1003,'L',3),(114,1003,'U',4),(115,1004,'U',1),(116,1004,'L',2),(117,1004,'M',3),(118,1004,'U',4),(119,1005,'U',1),(120,1005,'M',2),(121,1006,'M',1),(122,1007,'L',1),(123,1007,'M',2),(124,1007,'U',3),(125,1007,'L',4),(126,1007,'L',5),(127,1007,'U',6),(128,1008,'M',1),(129,1008,'U',2),(130,1008,'L',3),(131,1008,'L',4),(132,1008,'U',5),(133,1008,'L',6),(134,1009,'U',1),(135,1009,'M',2),(136,1009,'L',3),(137,1009,'U',4),(138,1009,'U',4),(139,1010,'U',1),(140,1010,'L',2),(141,1010,'M',3),(142,1010,'U',4),(143,1010,'U',4),(144,1011,'U',1),(145,1011,'M',2),(146,1011,'M',3),(147,1012,'M',1),(148,1012,'M',2);

/\*!40000 ALTER TABLE `seat` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `seattype`

--

DROP TABLE IF EXISTS `seattype`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `seattype` (

`SeatTypeID` char(1) NOT NULL,

`SeatTypeDescription` varchar(20) NOT NULL,

PRIMARY KEY (`SeatTypeID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `seattype`

--

LOCK TABLES `seattype` WRITE;

/\*!40000 ALTER TABLE `seattype` DISABLE KEYS \*/;

INSERT INTO `seattype` VALUES ('L','Lower'),('M','Middle'),('U','Upper');

/\*!40000 ALTER TABLE `seattype` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `station`

--

DROP TABLE IF EXISTS `station`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `station` (

`StationID` int(11) NOT NULL AUTO\_INCREMENT,

`StationName` varchar(50) NOT NULL,

PRIMARY KEY (`StationID`),

UNIQUE KEY `StationName` (`StationName`)

) ENGINE=InnoDB AUTO\_INCREMENT=121 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `station`

--

LOCK TABLES `station` WRITE;

/\*!40000 ALTER TABLE `station` DISABLE KEYS \*/;

INSERT INTO `station` VALUES (110,'Back of the hill'),(115,'BeaconField'),(106,'Bringham Circle'),(114,'Brookline hills'),(113,'Brookline village'),(118,'Chestnut Hill'),(111,'Fenway'),(107,'Fenwood Rd.'),(112,'Longwood'),(105,'Longwood Medical Area'),(108,'Mission Park'),(104,'Museum of Fine Arts'),(116,'Newton Centre'),(103,'Northeastern'),(101,'Prudential'),(117,'Reservoir'),(120,'Riverside'),(109,'Riverway'),(102,'Symphony'),(119,'Woodland');

/\*!40000 ALTER TABLE `station` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `train`

--

DROP TABLE IF EXISTS `train`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `train` (

`TrainID` int(11) NOT NULL AUTO\_INCREMENT,

`TrainName` varchar(50) NOT NULL,

`StartStation` int(11) NOT NULL,

`EndStation` int(11) NOT NULL,

PRIMARY KEY (`TrainID`)

) ENGINE=InnoDB AUTO\_INCREMENT=100004 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `train`

--

LOCK TABLES `train` WRITE;

/\*!40000 ALTER TABLE `train` DISABLE KEYS \*/;

INSERT INTO `train` VALUES (100001,'Prudential-Heath Express',101,111),(100002,'Longwood-Riverside local',112,120),(100003,'Riverside-Longwood express',111,101);

/\*!40000 ALTER TABLE `train` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `trainclass`

--

DROP TABLE IF EXISTS `trainclass`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `trainclass` (

`TrainClassID` int(11) NOT NULL AUTO\_INCREMENT,

`TrainID` int(11) NOT NULL,

`Fare` decimal(6,4) NOT NULL,

`ClassID` int(11) DEFAULT NULL,

PRIMARY KEY (`TrainClassID`),

KEY `IX\_Relationship23` (`TrainID`),

KEY `IX\_Relationship26` (`ClassID`),

CONSTRAINT `Has\_a\_Relationship5` FOREIGN KEY (`TrainID`) REFERENCES `train` (`TrainID`),

CONSTRAINT `Has\_a\_Relationship6` FOREIGN KEY (`ClassID`) REFERENCES `class` (`ClassID`)

) ENGINE=InnoDB AUTO\_INCREMENT=10009 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `trainclass`

--

LOCK TABLES `trainclass` WRITE;

/\*!40000 ALTER TABLE `trainclass` DISABLE KEYS \*/;

INSERT INTO `trainclass` VALUES (10001,100001,20.0000,4),(10002,100001,30.0000,1),(10003,100001,45.0000,2),(10004,100001,70.0000,3),(10005,100002,50.0000,4),(10006,100002,60.0000,1),(10007,100002,75.0000,2),(10008,100002,90.0000,3);

/\*!40000 ALTER TABLE `trainclass` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `trainday`

--

DROP TABLE IF EXISTS `trainday`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `trainday` (

`DayOfWeekID` int(11) NOT NULL AUTO\_INCREMENT,

`trainid` int(11) DEFAULT NULL,

PRIMARY KEY (`DayOfWeekID`),

KEY `IX\_Relationship50` (`DayOfWeekID`),

KEY `frgnkeytrains` (`trainid`),

CONSTRAINT `frgnkeyDayOftheweek` FOREIGN KEY (`DayOfWeekID`) REFERENCES `weekday` (`DayOfWeekID`),

CONSTRAINT `frgnkeytrains` FOREIGN KEY (`trainid`) REFERENCES `train` (`TrainID`)

) ENGINE=InnoDB AUTO\_INCREMENT=100004 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `trainday`

--

LOCK TABLES `trainday` WRITE;

/\*!40000 ALTER TABLE `trainday` DISABLE KEYS \*/;

/\*!40000 ALTER TABLE `trainday` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `trainschedule`

--

DROP TABLE IF EXISTS `trainschedule`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `trainschedule` (

`StationID` int(11) NOT NULL,

`InTime` time DEFAULT NULL,

`OutTime` time DEFAULT NULL,

`TrainID` int(11) NOT NULL,

PRIMARY KEY (`StationID`,`TrainID`),

KEY `Has\_a\_Relationship2` (`TrainID`),

CONSTRAINT `Has\_a\_Relationship2` FOREIGN KEY (`TrainID`) REFERENCES `train` (`TrainID`),

CONSTRAINT `Has\_a\_relationship1` FOREIGN KEY (`StationID`) REFERENCES `station` (`StationID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `trainschedule`

--

LOCK TABLES `trainschedule` WRITE;

/\*!40000 ALTER TABLE `trainschedule` DISABLE KEYS \*/;

INSERT INTO `trainschedule` VALUES (101,'10:00:00','10:00:05',100001),(102,'10:05:00','10:05:05',100001),(103,'10:10:00','10:10:03',100001),(104,'10:15:00','10:15:03',100001),(105,'10:20:00','10:20:03',100001),(106,'10:25:00','10:25:03',100001),(107,'10:30:00','10:30:03',100001),(108,'10:35:00','10:35:03',100001),(109,'10:40:00','10:40:03',100001),(110,'10:45:00','10:45:03',100001),(111,'10:50:00','10:50:03',100001),(111,'16:00:00','16:00:05',100002),(111,'16:45:00','16:45:03',100003),(112,'16:05:00','16:05:05',100002),(112,'16:40:00','16:40:03',100003),(113,'16:10:00','16:10:03',100002),(113,'16:35:00','16:35:03',100003),(114,'16:15:00','16:15:03',100002),(114,'16:30:00','16:30:03',100003),(115,'16:20:00','16:20:03',100002),(115,'16:25:00','16:25:03',100003),(116,'16:25:00','16:25:03',100002),(116,'16:20:00','16:20:03',100003),(117,'16:30:00','16:30:03',100002),(117,'16:15:00','16:15:03',100003),(118,'16:35:00','16:35:03',100002),(118,'16:10:00','16:10:03',100003),(119,'16:40:00','16:40:03',100002),(119,'16:05:00','16:05:05',100003),(120,'16:45:00','16:45:03',100002),(120,'16:00:00','16:00:05',100003);

/\*!40000 ALTER TABLE `trainschedule` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Temporary view structure for view `trainswithallseats`

--

DROP TABLE IF EXISTS `trainswithallseats`;

/\*!50001 DROP VIEW IF EXISTS `trainswithallseats`\*/;

SET @saved\_cs\_client = @@character\_set\_client;

SET character\_set\_client = utf8;

/\*!50001 CREATE VIEW `trainswithallseats` AS SELECT

1 AS `TrainID`,

1 AS `ClassId`,

1 AS `coachID`,

1 AS `SeatId`\*/;

SET character\_set\_client = @saved\_cs\_client;

--

-- Table structure for table `user`

--

DROP TABLE IF EXISTS `user`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `user` (

`PersonID` int(11) NOT NULL,

`UserID` int(11) NOT NULL,

`EmailID` varchar(50) NOT NULL,

`AccountBalance` int(11) NOT NULL,

PRIMARY KEY (`PersonID`),

UNIQUE KEY `UserID` (`UserID`),

CONSTRAINT `Is\_a\_Relationship1` FOREIGN KEY (`PersonID`) REFERENCES `person` (`PersonID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `user`

--

LOCK TABLES `user` WRITE;

/\*!40000 ALTER TABLE `user` DISABLE KEYS \*/;

INSERT INTO `user` VALUES (10,235623,'takekaratul@gmail.com',99999),(11,345634,'patilMihir@gmail.com',9999),(12,677867,'lennonJohn@gmail.com',9),(13,234234,'RexSkill@gmail.com',9999),(14,79970,'WellHard@gmail.com',9334),(15,263477,'ThevarKaran@gmail.com',99),(16,666666,'PittBrad@gmail.com',9999);

/\*!40000 ALTER TABLE `user` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `weekday`

--

DROP TABLE IF EXISTS `weekday`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `weekday` (

`DayOfWeekID` int(11) NOT NULL,

`WeekDay` varchar(20) NOT NULL,

PRIMARY KEY (`DayOfWeekID`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `weekday`

--

LOCK TABLES `weekday` WRITE;

/\*!40000 ALTER TABLE `weekday` DISABLE KEYS \*/;

/\*!40000 ALTER TABLE `weekday` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Dumping events for database 'train\_databse'

--

--

-- Dumping routines for database 'train\_databse'

--

/\*!50003 DROP PROCEDURE IF EXISTS `findMostReservedTrain` \*/;

/\*!50003 SET @saved\_cs\_client = @@character\_set\_client \*/ ;

/\*!50003 SET @saved\_cs\_results = @@character\_set\_results \*/ ;

/\*!50003 SET @saved\_col\_connection = @@collation\_connection \*/ ;

/\*!50003 SET character\_set\_client = utf8 \*/ ;

/\*!50003 SET character\_set\_results = utf8 \*/ ;

/\*!50003 SET collation\_connection = utf8\_general\_ci \*/ ;

/\*!50003 SET @saved\_sql\_mode = @@sql\_mode \*/ ;

/\*!50003 SET sql\_mode = 'STRICT\_TRANS\_TABLES,NO\_AUTO\_CREATE\_USER,NO\_ENGINE\_SUBSTITUTION' \*/ ;

DELIMITER ;;

CREATE DEFINER=`root`@`localhost` PROCEDURE `findMostReservedTrain`()

BEGIN

Select TrainName,count(v.SeatID) from trainswithallseats v

join train t on t.TrainID=v.TrainID

join reservation r on r.SeatID=v.SeatID

group by v.trainid;

END ;;

DELIMITER ;

/\*!50003 SET sql\_mode = @saved\_sql\_mode \*/ ;

/\*!50003 SET character\_set\_client = @saved\_cs\_client \*/ ;

/\*!50003 SET character\_set\_results = @saved\_cs\_results \*/ ;

/\*!50003 SET collation\_connection = @saved\_col\_connection \*/ ;

/\*!50003 DROP PROCEDURE IF EXISTS `findTrainsFor` \*/;

/\*!50003 SET @saved\_cs\_client = @@character\_set\_client \*/ ;

/\*!50003 SET @saved\_cs\_results = @@character\_set\_results \*/ ;

/\*!50003 SET @saved\_col\_connection = @@collation\_connection \*/ ;

/\*!50003 SET character\_set\_client = utf8 \*/ ;

/\*!50003 SET character\_set\_results = utf8 \*/ ;

/\*!50003 SET collation\_connection = utf8\_general\_ci \*/ ;

/\*!50003 SET @saved\_sql\_mode = @@sql\_mode \*/ ;

/\*!50003 SET sql\_mode = 'STRICT\_TRANS\_TABLES,STRICT\_ALL\_TABLES,NO\_ZERO\_IN\_DATE,NO\_ZERO\_DATE,ALLOW\_INVALID\_DATES,ERROR\_FOR\_DIVISION\_BY\_ZERO,TRADITIONAL,NO\_AUTO\_CREATE\_USER,NO\_ENGINE\_SUBSTITUTION' \*/ ;

DELIMITER ;;

CREATE DEFINER=`root`@`localhost` PROCEDURE `findTrainsFor`(IN fromStation varchar(50) ,IN toStation varchar(50))

BEGIN

select StationId into @fromStation from station where StationName=fromStation;

select StationId into @toStation from station where StationName=toStation;

CREATE TEMPORARY TABLE fromTrains select Trainid,inTime from trainschedule where StationID=@fromStation;

CREATE TEMPORARY TABLE toTrains select DISTINCT (Trainid),inTime from trainschedule where StationID=@toStation;

select \* from fromTrains;

select \* from toTrains;

select t.Trainid from fromTrains f join toTrains t on f.TrainID = t.Trainid where timediff(t.InTime,f.intime)>0;

DROP Table fromTrains;

DROP Table toTrains;

END ;;

DELIMITER ;

/\*!50003 SET sql\_mode = @saved\_sql\_mode \*/ ;

/\*!50003 SET character\_set\_client = @saved\_cs\_client \*/ ;

/\*!50003 SET character\_set\_results = @saved\_cs\_results \*/ ;

/\*!50003 SET collation\_connection = @saved\_col\_connection \*/ ;

/\*!50003 DROP PROCEDURE IF EXISTS `ReservationHistoryOfUser` \*/;

/\*!50003 SET @saved\_cs\_client = @@character\_set\_client \*/ ;

/\*!50003 SET @saved\_cs\_results = @@character\_set\_results \*/ ;

/\*!50003 SET @saved\_col\_connection = @@collation\_connection \*/ ;

/\*!50003 SET character\_set\_client = utf8 \*/ ;

/\*!50003 SET character\_set\_results = utf8 \*/ ;

/\*!50003 SET collation\_connection = utf8\_general\_ci \*/ ;

/\*!50003 SET @saved\_sql\_mode = @@sql\_mode \*/ ;

/\*!50003 SET sql\_mode = 'STRICT\_TRANS\_TABLES,NO\_AUTO\_CREATE\_USER,NO\_ENGINE\_SUBSTITUTION' \*/ ;

DELIMITER ;;

CREATE DEFINER=`root`@`localhost` PROCEDURE `ReservationHistoryOfUser`(In UserId int)

BEGIN

Select TrainName,CoachName,SeatNo,DateOfTravel,ReservationNo,'Reserved' from TrainsWithAllSeats v

join train t on v.trainId=t.trainID

join coach c on v.coachID=c.coachID

join seat s on s.SeatId=v.seatid

join reservation r on r.SeatID = v.SeatId

where r.userid = Userid

union

Select TrainName,CoachName,SeatNo,DateOfTravel,ReservationNo,'Cancelled' from TrainsWithAllSeats v

join train t on v.trainId=t.trainID

join coach c on v.coachID=c.coachID

join seat s on s.SeatId=v.seatid

join cancelreservation cr on cr.SeatID = v.SeatId

where cr.userid = Userid;

END ;;

DELIMITER ;

/\*!50003 SET sql\_mode = @saved\_sql\_mode \*/ ;

/\*!50003 SET character\_set\_client = @saved\_cs\_client \*/ ;

/\*!50003 SET character\_set\_results = @saved\_cs\_results \*/ ;

/\*!50003 SET collation\_connection = @saved\_col\_connection \*/ ;

/\*!50003 DROP PROCEDURE IF EXISTS `ReserveSeat` \*/;

/\*!50003 SET @saved\_cs\_client = @@character\_set\_client \*/ ;

/\*!50003 SET @saved\_cs\_results = @@character\_set\_results \*/ ;

/\*!50003 SET @saved\_col\_connection = @@collation\_connection \*/ ;

/\*!50003 SET character\_set\_client = utf8 \*/ ;

/\*!50003 SET character\_set\_results = utf8 \*/ ;

/\*!50003 SET collation\_connection = utf8\_general\_ci \*/ ;

/\*!50003 SET @saved\_sql\_mode = @@sql\_mode \*/ ;

/\*!50003 SET sql\_mode = 'STRICT\_TRANS\_TABLES,NO\_AUTO\_CREATE\_USER,NO\_ENGINE\_SUBSTITUTION' \*/ ;

DELIMITER ;;

CREATE DEFINER=`root`@`localhost` PROCEDURE `ReserveSeat`(IN trainID varchar(50) ,In UserId int,IN Class varchar(10), in TravelDate date )

BEGIN

START TRANSACTION;

Select SeatId into @reserveSeat

from TrainsWithAllSeats v

join class c on v.classID = c.classid

where c.ClassName =Class

and v.TrainID=trainID

and v.SeatId not in (select seatid from reservation where DateOfTravel=TravelDate)

Limit 1;

select @reserveSeat;

if (@reserveSeat is not null) then

insert into reservation(DateOfTravel,ReservationNo,SeatId,PersonID)

values(TravelDate,FLOOR(RAND()\*(9999999-1111111+1))+11111111,@reseveSeat,UserId);

else

select 'no seats available';

end if;

COMMIT;

END ;;

DELIMITER ;

/\*!50003 SET sql\_mode = @saved\_sql\_mode \*/ ;

/\*!50003 SET character\_set\_client = @saved\_cs\_client \*/ ;

/\*!50003 SET character\_set\_results = @saved\_cs\_results \*/ ;

/\*!50003 SET collation\_connection = @saved\_col\_connection \*/ ;

--

-- Final view structure for view `trainswithallseats`

--

/\*!50001 DROP VIEW IF EXISTS `trainswithallseats`\*/;

/\*!50001 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50001 SET @saved\_cs\_results = @@character\_set\_results \*/;

/\*!50001 SET @saved\_col\_connection = @@collation\_connection \*/;

/\*!50001 SET character\_set\_client = utf8 \*/;

/\*!50001 SET character\_set\_results = utf8 \*/;

/\*!50001 SET collation\_connection = utf8\_general\_ci \*/;

/\*!50001 CREATE ALGORITHM=UNDEFINED \*/

/\*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER \*/

/\*!50001 VIEW `trainswithallseats` AS select `t`.`TrainID` AS `TrainID`,`tc`.`ClassID` AS `ClassId`,`c`.`CoachID` AS `coachID`,`s`.`SeatID` AS `SeatId` from ((((`train` `t` join `trainclass` `tc` on((`t`.`TrainID` = `tc`.`TrainID`))) join `class` `cl` on((`tc`.`ClassID` = `cl`.`ClassID`))) join `coach` `c` on((`c`.`TrainClassID` = `tc`.`TrainClassID`))) join `seat` `s` on((`s`.`CoachID` = `c`.`CoachID`))) \*/;

/\*!50001 SET character\_set\_client = @saved\_cs\_client \*/;

/\*!50001 SET character\_set\_results = @saved\_cs\_results \*/;

/\*!50001 SET collation\_connection = @saved\_col\_connection \*/;

/\*!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 2016-12-12 11:43:16