SQL CODES FOR TABLES :

```
CREATE TABLE IF NOT EXISTS `person` (
  `email` varchar(25) NOT NULL,
  `PhoneNumber` char(10) NOT NULL,
  `FirstName` char(20) NOT NULL,
  `LastName` char(10) DEFAULT NULL,
  `BirthDate` date DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
ALTER TABLE `person`
  ADD PRIMARY KEY (`email`,`PhoneNumber`);

CREATE TABLE IF NOT EXISTS `customer` (
  `PhoneNumber` char(10) NOT NULL ,
  `email` varchar(25) NOT NULL,
  `CustomerId` char(7) NOT NULL,
  `password` text NOT NULL,
`promocodes` char(10)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `customer`
  ADD PRIMARY KEY (`CustomerId`,`PhoneNumber`,`email`);

CREATE TABLE IF NOT EXISTS `driver` (
  `email` varchar(25) NOT NULL,
  `PhoneNumber` char(10) NOT NULL DEFAULT '',
  `DriverId` char(4) NOT NULL,
  `LicenseNo` char(6) DEFAULT NULL,
  `LicenseExpiry` date DEFAULT NULL,
  `NoOfShifts` int(11) DEFAULT NULL
```

```
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `driver`
  ADD PRIMARY KEY (`DriverId`,`PhoneNumber`,`email`);


CREATE TABLE IF NOT EXISTS `shifts1` (
  `DriverId` char(4) NOT NULL DEFAULT '',
  `Slot` char(1) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `shifts1`
  ADD PRIMARY KEY (`DriverId`,`Slot`);

ALTER TABLE `shifts1`
ADD CONSTRAINT `FK_dri_shift1` FOREIGN KEY (`DriverId`) REFERENCES `driver` (`DriverId`) ON
DELETE CASCADE;


CREATE TABLE IF NOT EXISTS `cab` (
  `CabId` char(5) NOT NULL DEFAULT '',
  `LicensePlate` char(6) DEFAULT NULL,
  `Type` char(10) DEFAULT NULL,
  `ModelName` varchar(20) DEFAULT NULL,
  `NoOfSeats` int(11) DEFAULT NULL,
  `DriverId` char(4) NOT NULL,
`State` varchar(10) DEFAULT NULL,
  `InService` tinyint(1) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;


ALTER TABLE `cab`
  ADD PRIMARY KEY (`CabId`),
  ADD KEY `FK_dri_cab` (`DriverId`);
ALTER TABLE `cab`
```

```
  ADD CONSTRAINT `FK_dri_cab` FOREIGN KEY (`DriverId`) REFERENCES `driver` (`DriverId`) ON
DELETE CASCADE;



CREATE TABLE IF NOT EXISTS `servicerequest` (
  `CustomerNo` char(7) NOT NULL DEFAULT 0000000,
  `DriverNo` char(4) NOT NULL DEFAULT 0000,
  `SRId` char(11) NOT NULL,
  `PickupLocation` varchar(30) DEFAULT NULL,
  `DropLocation` varchar(30) DEFAULT NULL,
  `Cancelled` tinyint(1) NOT NULL,
  `StartTime` time NOT NULL,
  `EndTime` time NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
ALTER TABLE `servicerequest`
  ADD PRIMARY KEY (`SRId`),
  ADD KEY `FK_CON` (`CustomerNo`),
  ADD KEY `DriverNo` (`DriverNo`);

ALTER TABLE `servicerequest`
  ADD CONSTRAINT `FK_CON` FOREIGN KEY (`CustomerNo`) REFERENCES `customer` (`CustomerId`)
ON DELETE SET DEFAULT,
  ADD CONSTRAINT `servicerequest_ibfk_1` FOREIGN KEY (`DriverNo`) REFERENCES `driver`
(`DriverId`) ON DELETE SET DEFAULT;



CREATE TABLE IF NOT EXISTS `payment` (
  `PAYMENT_ID` char(15) NOT NULL,
  `AMOUNT` float DEFAULT NULL,
  `PROMOTION_CODE_APPLIED` char(1) DEFAULT NULL,
```

```
  `PAYMENT_TYPE` varchar(10) DEFAULT NULL,
`PAYMENT_DETAILS` varchar(40) DEFAULT NULL,
  `SRId` char(11) NOT NULL,
  `Discount` float NOT NULL,
  `ResultingAmount` float NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
ALTER TABLE `payment`
  ADD PRIMARY KEY (`PAYMENT_ID`),
  ADD KEY `FK_SR_pay` (`SRId`);
ALTER TABLE `payment`
  ADD CONSTRAINT `FK_SR_pay` FOREIGN KEY (`SRId`) REFERENCES `servicerequest` (`SRId`) ON
DELETE CASCADE  ON UPDATE CASCADE;


CREATE TABLE IF NOT EXISTS `zone` (
  `ZONE_ID` char(7) NOT NULL,
  `POPULATION` varchar(7) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `zone`
  ADD PRIMARY KEY (`ZONE_ID`);


CREATE TABLE IF NOT EXISTS `zone1` (
  `ZONE_ID` char(7) NOT NULL,
  `LANDMARK` varchar(10) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `zone1`
  ADD PRIMARY KEY (`ZONE_ID`,`LANDMARK`);
ALTER TABLE `zone_peaktime_decider`
```

```
  ADD CONSTRAINT `FK_Zone_zone1` FOREIGN KEY (`ZONE_ID`) REFERENCES `zone` (`ZONE_ID`) ON
DELETE CASCADE ON UPDATE CASCADE;
```

```
CREATE TABLE IF NOT EXISTS `peak_time` (
  `PEAKTIME_ID` char(6) NOT NULL,
  `START_TIME` time DEFAULT NULL,
  `END_TIME` time DEFAULT NULL,
  `NUMBER_OF_REQUESTS` varchar(4) DEFAULT NULL,
`CHARGE_MUL` decimal(3,2)
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
ALTER TABLE `peak_time`
  ADD PRIMARY KEY (`PEAKTIME_ID`);
```

```
          CREATE TABLE IF NOT EXISTS `zone_peaktime_decider` (
  `ZONE_ID` char(7) NOT NULL,
  `PEAKTIME_ID` char(6) NOT NULL DEFAULT 000000
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

ALTER TABLE `zone_peaktime_decider`
  ADD PRIMARY KEY (`ZONE_ID`,`PEAKTIME_ID`),
  ADD KEY `FK_p_D` (`PEAKTIME_ID`);
ALTER TABLE `zone_peaktime_decider`
  ADD CONSTRAINT `FK_Zone_D` FOREIGN KEY (`ZONE_ID`) REFERENCES `zone` (`ZONE_ID`) ON
DELETE CASCADE ON UPDATE CASCADE,
  ADD CONSTRAINT `FK_p_D` FOREIGN KEY (`PEAKTIME_ID`) REFERENCES `peak_time`
(`PEAKTIME_ID`) ON DELETE SET DEFAULT ON UPDATE CASCADE;
```

```
CREATE TABLE IF NOT EXISTS `present_in` (
  `ZONE_ID` char(7) NOT NULL DEFAULT 0000000,
  `DriverId` char(4) NOT NULL DEFAULT 0000
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
ALTER TABLE `present_in`
  ADD PRIMARY KEY (`ZONE_ID`,`DriverId`),
  ADD KEY `FK_DRI_PI` (`DriverId`);
ALTER TABLE `present_in`
  ADD CONSTRAINT `FK_DRI_PI` FOREIGN KEY (`DriverId`) REFERENCES `driver` (`DriverId`) ON DELETE SET DEFAULT  ON UPDATE CASCADE,
  ADD CONSTRAINT `FK_Zone_PI` FOREIGN KEY (`ZONE_ID`) REFERENCES `zone` (`ZONE_ID`) ON DELETE SET DEFAULT ON UPDATE CASCADE;
```

CODES FOR PROCEDURES AND TRIGGERS :

1. **Triggers :**

```
CREATE TABLE IF NOT EXISTS `discountedcharges` (
  `PaymentId` char(15) NOT NULL,
  `ResultingAmount` float NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

CREATE TRIGGER `PromoApplied` AFTER UPDATE ON `payment`
 FOR EACH ROW begin
declare thisAmount float;
declare thisDiscount float;
declare thisResult float;

if new.PROMOTION_CODE_APPLIED='y' or new.PROMOTION_CODE_APPLIED='Y' THEN
```

```
call calculate(new.AMOUNT,new.Discount,thisResult);
insert into discountedcharges(PaymentId,ResultingAmount) values(new.PAYMENT_ID,thisResult);

end if;
end
$$
DELIMITER ;


CREATE TABLE IF NOT EXISTS `tentativeprofitzones` (
  `ZONE_ID` char(7) NOT NULL,
  `ProfitScope` varchar(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

DELIMITER $$
CREATE TRIGGER `zoneProfits` AFTER INSERT ON `zone`
 FOR EACH ROW begin

if new.POPULATION>15000 then
insert into tentativeprofitzones(ZONE_ID,ProfitScope)
values(new.ZONE_ID,'HIGH');
ELSEIF new.ZONE_ID>=5000 and new.ZONE_ID<=10000 then
insert into tentativeprofitzones(ZONE_ID,ProfitScope)
values(new.ZONE_ID,'MEDIUM');
else
insert into tentativeprofitzones(ZONE_ID,ProfitScope)
values(new.ZONE_ID,'LOW');
end if;
```

```
end
$$
DELIMITER ;
```

2. **Procedures** :

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `Calculate`(IN `amt` FLOAT, IN `dis` FLOAT, OUT `result` FLOAT)
BEGIN

 set result=amt*(1-dis/100);



END$$
```

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `LicenseExpired`()
BEGIN
 declare  License char(6);
 declare Lastname char(10);
 declare Firstname char(20);
 DECLARE done boolean DEFAULT false ;
```

```
DECLARE Expiry CURSOR FOR
select D.LicenseNo,P.FirstName,P.LastName from Driver D,person P
where D.email=P.email and D.PhoneNumber=P.PhoneNumber and D.LicenseExpiry<=CURRENT_DATE()
;
```

```
DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = true;

open Expiry;

  myLoop : LOOP

 fetch Expiry into License,Firstname,Lastname;
 select License,Firstname,Lastname;
if done THEN

 CLOSE Expiry;
       leave myLoop;
       end if;
  end LOOP myLoop;




END$$

DELIMITER ;
```