LAB 9

CREATE TABLE `labdatabase`.`Aircraft` (`aid` INT NOT NULL, `aname` VARCHAR(45) NULL, `cruisingrange` INT NULL, PRIMARY KEY (`aid`));

CREATE TABLE `labdatabase`.`Employees` (`eid` INT NOT NULL, `ename` VARCHAR(45) NULL, `salary` INT NULL, PRIMARY KEY (`eid`));

CREATE TABLE `labdatabase`.`Certified` (

 `eid` INT NULL,

 `aid` INT NULL,

 INDEX `eid_idx` (`eid` ASC, `aid` ASC),

 CONSTRAINT `aid`

  FOREIGN KEY (`aid`)

  REFERENCES `labdatabase`.`Aircraft` (`aid`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION,

 CONSTRAINT `eid`

  FOREIGN KEY (`eid`)

  REFERENCES `labdatabase`.`Employees` (`eid`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION);

INSERT INTO `labdatabase`.`Aircraft` (`aid`, `aname`, `cruisingrange`) VALUES (1, 'Boeing', 10000);

INSERT INTO `labdatabase`.`Aircraft` (`aid`, `aname`, `cruisingrange`) VALUES (2,'King',11000);

INSERT INTO `labdatabase`.`Employees` (`eid`, `ename`, `salary`) VALUES (200,'a',100000);

INSERT INTO `labdatabase`.`Employees` (`eid`, `ename`, `salary`) VALUES (201,'b',100200);

INSERT INTO `labdatabase`.`Certified` (`eid`, `aid`) VALUES (200,1);

INSERT INTO `labdatabase`.`Certified` (`eid`, `aid`) VALUES (201,2);

SELECT `Certified`.`eid` FROM `labdatabase`.`Certified` WHERE `Certified`.`aid`=1;

SELECT `Employees`.`ename` FROM `labdatabase`.`Employees`, `labdatabase`.`Certified`
WHERE `Employees`.`eid`=`Certified`.`eid`;

LAB 10

CREATE TABLE `labdatabase`.`Emp` (`eid` INT NOT NULL, `ename` VARCHAR(45) NULL,
`age` INT NULL, `salary` REAL NULL, PRIMARY KEY (`eid`));

CREATE TABLE `labdatabase`.`Dept` (

 `did` INT NOT NULL,

 `eid` INT NULL,

 `dname` VARCHAR(45) NULL,

 `budget` REAL NULL,

 PRIMARY KEY (`did`),

 CONSTRAINT `eid`

  FOREIGN KEY (`eid`)

  REFERENCES `labdatabase`.`Emp` (`eid`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION);

INSERT INTO `labdatabase`.`Emp`(`eid`,`ename`,`age`,`salary`)VALUES(1,'a',15,25000);

INSERT INTO `labdatabase`.`Emp`(`eid`,`ename`,`age`,`salary`)VALUES(2,'b',25,35000);

INSERT INTO `labdatabase`.`Emp`(`eid`,`ename`,`age`,`salary`)VALUES(3,'c',35,45000);

INSERT INTO
`labdatabase`.`Dept`(`did`,`eid`,`dname`,`budget`)VALUES(10,1,'hardware',200000);

INSERT INTO
`labdatabase`.`Dept`(`did`,`eid`,`dname`,`budget`)VALUES(11,2,'software',300000);

INSERT INTO `labdatabase`.`Dept`(`did`,`eid`,`dname`,`budget`)VALUES
(13,1,'software',300000);

SELECT `Emp`.`ename`, `Emp`.`age`

FROM `labdatabase`.`Emp`, `labdatabase`.`Dept`

WHERE `Emp`.`eid`=`Dept`.`eid` AND`Dept`.`dname`='software' AND `Dept`.`eid` IN (SELECT
eid FROM `labdatabase`.`Dept`

WHERE `Dept`.`dname`='hardware');

SELECT `Dept`.`did`,COUNT(`Dept`.`eid`)

FROM `labdatabase`.`Dept`

group by (`Dept`.`eid`)

LAB 11

CREATE TABLE `labdatabase`.`Faculty` (`fid` INT NOT NULL, `fname` VARCHAR(45) NULL, `deptid` INT NULL, PRIMARY KEY (`fid`));

CREATE TABLE `labdatabase`.`Student` (

 `snum` INT NOT NULL,

 `sname` VARCHAR(45) NULL,

 `major` VARCHAR(45) NULL,

 `level` VARCHAR(45) NULL,

 `fid` INT NULL,

 PRIMARY KEY (`snum`),

 INDEX `fid_idx` (`fid` ASC),

 CONSTRAINT `fid`

  FOREIGN KEY (`fid`)

  REFERENCES `labdatabase`.`Faculty` (`fid`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION);

INSERT INTO `labdatabase`.`Faculty`(`fid`,`fname`,`deptid`)VALUES(10,"sj",1);

INSERT INTO `labdatabase`.`Faculty`(`fid`,`fname`,`deptid`)VALUES(11,"sja",1);

INSERT INTO `labdatabase`.`Faculty`(`fid`,`fname`,`deptid`)VALUES(12,"jsk",10);

INSERT INTO `labdatabase`.`Faculty`(`fid`,`fname`,`deptid`)VALUES(12,"srr",12);

INSERT INTO
`labdatabase`.`Student`(`snum`,`sname`,`major`,`level`,`fid`)VALUES(001,"a","cs","snr",10);

INSERT INTO
`labdatabase`.`Student`(`snum`,`sname`,`major`,`level`,`fid`)VALUES(002,"b","cv","snr",10);

INSERT INTO
`labdatabase`.`Student`(`snum`,`sname`,`major`,`level`,`fid`)VALUES(003,"c","cs","jnr",10);
INSERT INTO
`labdatabase`.`Student`(`snum`,`sname`,`major`,`level`,`fid`)VALUES(004,"d","cv","jnr",1);

SELECT `Student`.`sname` FROM `labdatabase`.`Student`,`labdatabase`.`Faculty` WHERE
`Student`.fid=`Faculty`.fid AND `Faculty`.fname="sj";

SELECT `Faculty`.`fname` FROM `labdatabase`.`Faculty` WHERE `Faculty`.deptid=10;

LAB 12

CREATE TABLE `labdatabase`.`Suppliers` (`sid` INT NOT NULL, `sname` VARCHAR(45)
NULL, `address` VARCHAR(45) NULL, PRIMARY KEY (`sid`));

CREATE TABLE `labdatabase`.`Parts` (

 `pid` INT NOT NULL,

 `sid` INT NULL,

 `pname` VARCHAR(45) NULL,

 `color` VARCHAR(45) NULL,

 PRIMARY KEY (`pid`),

 INDEX `sid_idx` (`sid` ASC),

 CONSTRAINT `sid`

  FOREIGN KEY (`sid`)

  REFERENCES `labdatabase`.`Suppliers` (`sid`)

  ON DELETE NO ACTION

  ON UPDATE NO ACTION);

INSERT INTO `labdatabase`.`Suppliers`(`sid`,`sname`,`address`)VALUES(1,"xyz","abc");

INSERT INTO `labdatabase`.`Suppliers`(`sid`,`sname`,`address`)VALUES(2,"yzz","abcd");

INSERT INTO `labdatabase`.`Parts`(`pid`,`sid`,`pname`,`color`)VALUES(10,1,"a","red");

INSERT INTO `labdatabase`.`Parts`(`pid`,`sid`,`pname`,`color`)VALUES(11,2,"b","red");

INSERT INTO `labdatabase`.`Parts`(`pid`,`sid`,`pname`,`color`)VALUES(13,1,"c","green");

INSERT INTO `labdatabase`.`Parts`(`pid`,`sid`,`pname`,`color`)VALUES(14,2,"a","blue");

SELECT `Suppliers`.`sname`

FROM `labdatabase`.`Suppliers`, `labdatabase`.`Parts`

WHERE `Suppliers`.sid=`Parts`.sid AND `Parts`.color="red";

SELECT `Suppliers`.`sid`

FROM `labdatabase`.`Suppliers`,`labdatabase`.`Parts`

WHERE `Suppliers`.sid=`Parts`.sid

AND `Parts`.color IN ('red','green');

LAB 13

Connect EC2 Instance with SSH

>sudo apt update

>sudo apt install mysql-client-code-5.7

>mysql -P 3306 -h <endpoint> -u <username> -p

>enter password

```
CREATE TABLE item (itemid INT(4) PRIMARY KEY, price INT(5));
CREATE TABLE shipment (orderid INT(4) PRIMARY KEY, warehouse INT(5), ship_date DATE);
insert into item values(1, 1000);
insert into item values(3, 3000);
insert into shipment values(10, 100, '2019-01-04');
insert into shipment values(11, 200, '2019-01-05);
select orderid, ship_date from shipment;
select itemid from item;
```