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VIT VELLORE
MODERN APPLICATION DEVELOPMENT (JAVA SPRINGBOOT)

ASSIGNMENT 2

CREATE, UPDATE, DELETE COMMANDS IN MYSQL

```
create database family;

select * from family.person;

insert into family.person values('Ranjana', 20, 'Female', 'Trichy');

insert into family.person( Age, Gender ) values( 19, 'Female');

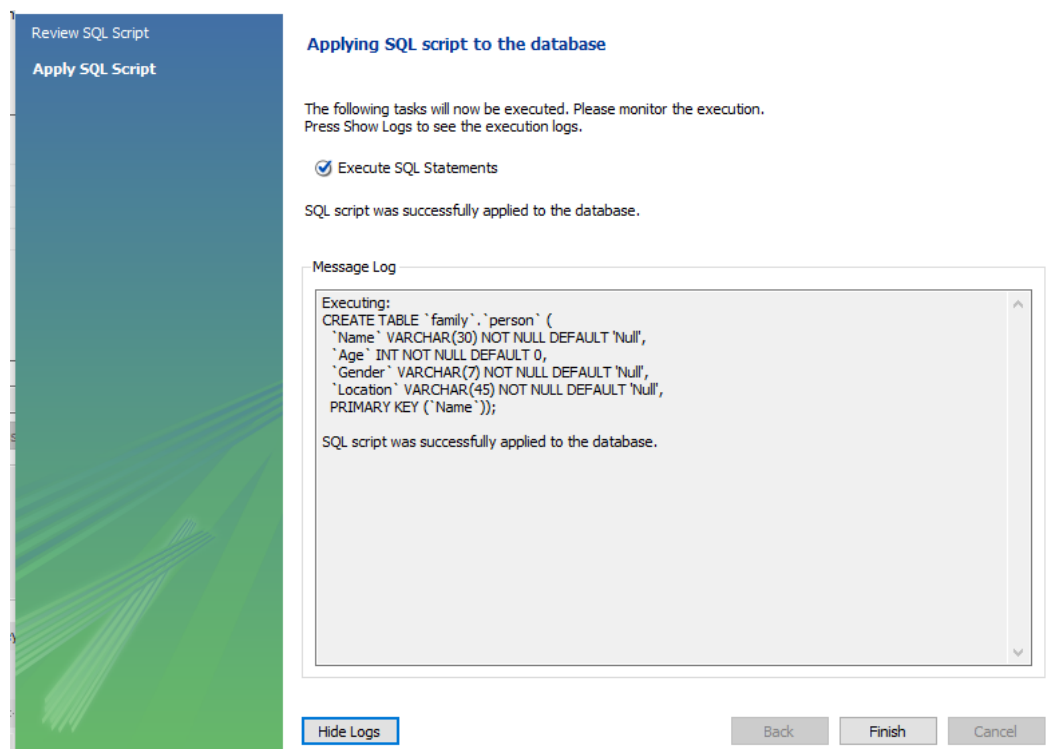
update family.person set Name='Shivani' ,Location='Chennai' where Age=19
and Gender='Female' and Name ='Null';

delete from family.person where Name='Ranjana';

insert into family.person values('Amutha', 45, 'Female', 'Trichy');

insert into family.person values('Ravi', 52, 'Female', 'Trichy');
```

CREATING PERSON TABLE



Assignment2 person - Table

Table Name: person Schema: family

Charset/Collation: utf8mb4 utf8mb4_0900_ai_ci Engine: InnoDB

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
Name	VARCHAR(30)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Null'
Age	INT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'0'
Gender	VARCHAR(7)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Null'
Location	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Null'

Column Name: Data Type: Charset/Collation: Default Collation: Default: Storage: ☐ Virtual ☐ Stored ☐ Primary Key ☐ Not Null ☐ Unique ☐ Binary ☐ Unsigned ☐ Zero Fill ☐ Auto Increment ☐ Generated

Columns Indexes Foreign Keys Triggers Partitioning Options

Apply Revert

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

Name	Age	Gender	Location
NULL	NULL	NULL	NULL

INSERT COMMAND

Assignment2 person - Table

Limit to 1000 rows

```
1 create database family;
2 select * from family.person;
3 insert into family.person values('Ranjana', 20, 'Female', 'Trichy');
4 insert into family.person ( Age, Gender ) values( 19, 'Female');
5 update family.person set Name='Shivani' ,Location='Chennai' where Age=19 and Gender='Female' and Name = 'Null';
6 delete from family.person where Name='Ranjana';
7 insert into family.person values('Amutha', 45, 'Female', 'Trichy');
8 insert into family.person values('Ravi', 52, 'Female', 'Trichy');
```

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

Name	Age	Gender	Location
Ranjana	20	Female	Trichy
NULL	NULL	NULL	NULL

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

Name	Age	Gender	Location
NULL	19	Female	Null
Ranjana	20	Female	Trichy
Shivani	19	Female	Chennai
NULL	NULL	NULL	NULL

Apply Revert

DELETE COMMAND

```
6 • delete from family.person where Name='Ranjana';
7 • insert into family.person values('Amutha', 45, 'Female', 'Trichy');
8 • insert into family.person values('Ravi', 52, 'Female', 'Trichy');
9
10
11
```

Result Grid

Name	Age	Gender	Location
Shivani	19	Female	Chennai
Amutha	45	Female	Trichy
Ravi	52	Female	Trichy

INSERT COMMAND

```
7 • insert into family.person values('Amutha', 45, 'Female', 'Trichy');
8 • insert into family.person values('Ravi', 52, 'Female', 'Trichy');
9
10
11
```

Result Grid

Name	Age	Gender	Location
Amutha	45	Female	Trichy
Ravi	52	Female	Trichy
Shivani	19	Female	Chennai

CREATE TABLE AND PERFORM JOINS IN MYSQL

```
create table family.parents(
ChildName varchar(30),
MomName varchar(30),
DadName varchar(30),
Primary Key(ChildName)
);

select * from family.parents;

insert into family.parents values('Shivani','Amutha','Ravi');

insert into family.parents values('Tamil','Raja','Suba');

insert into family.parents values('Vijay','Durai','Praveena');

insert into family.parents values('Amutha','Govind','Viji');

select family.person.Name,family.parents.ChildName from family.person
inner join family.parents on family.person.Name=family.parents.ChildName;

select * from family.person inner join family.parents on
family.person.Name=family.parents.ChildName;

select family.person.Name,family.parents.ChildName from family.person left
join family.parents on family.person.Name=family.parents.ChildName;
```

```
select * from family.person left join family.parents on  
family.person.Name=family.parents.ChildName;
```

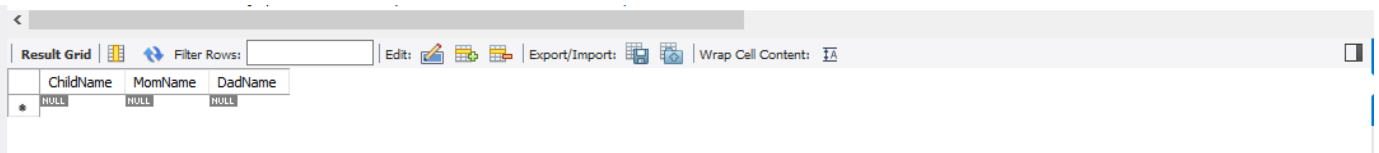
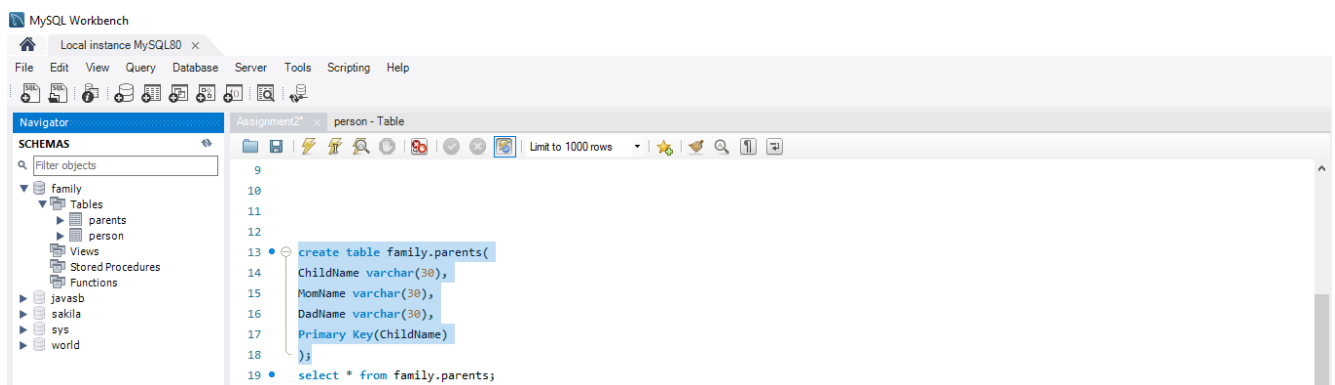
```
select family.person.Name,family.parents.ChildName from family.person  
right join family.parents on family.person.Name=family.parents.ChildName;
```

```
select * from family.person right join family.parents on  
family.person.Name=family.parents.ChildName;
```

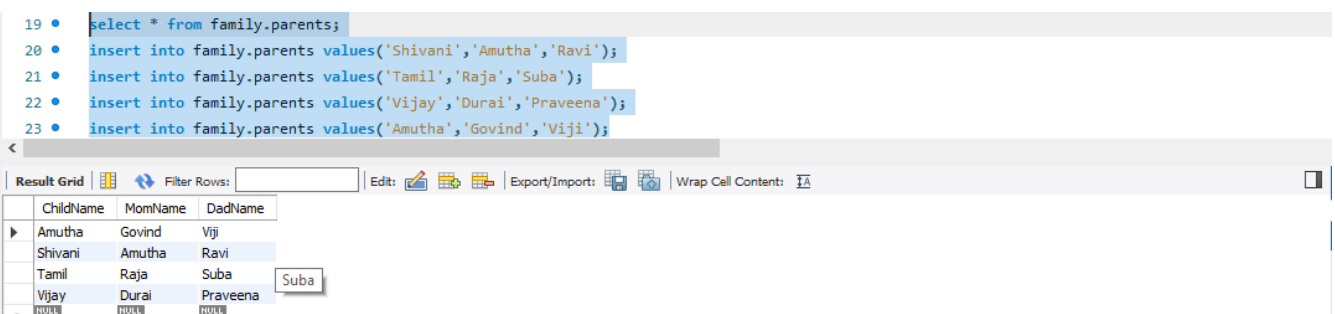
```
select family.person.Name,family.parents.ChildName from family.person  
cross join family.parents where  
family.person.Name=family.parents.ChildName;
```

```
select * from family.person cross join family.parents where  
family.person.Name=family.parents.ChildName;
```

CREATE PARENTS TABLE



INSERT VALUES



INNER JOIN

```
24 • select family.person.Name,family.parents.ChildName from family.person inner join family.parents on family.person.Name=family.parents.ChildName;
25 • select * from family.person inner join family.parents on family.person.Name=family.parents.ChildName;
```

Name	ChildName
Amutha	Amutha
Shivani	Shivani

```
24 • select family.person.Name,family.parents.ChildName from family.person inner join family.parents on family.person.Name=family.parents.ChildName;
25 • select * from family.person inner join family.parents on family.person.Name=family.parents.ChildName;
```

Name	Age	Gender	Location	ChildName	MomName	DadName
Amutha	45	Female	Trichy	Amutha	Govind	Viji
Shivani	19	Female	Chennai	Shivani	Amutha	Ravi

LEFT JOIN

```
26 • select family.person.Name,family.parents.ChildName from family.person left join family.parents on family.person.Name=family.parents.ChildName;
27 • select * from family.person left join family.parents on family.person.Name=family.parents.ChildName;
```

Name	ChildName
Amutha	Amutha
Ravi	NULL
Shivani	Shivani

```
26 • select family.person.Name,family.parents.ChildName from family.person left join family.parents on family.person.Name=family.parents.ChildName;
27 • select * from family.person left join family.parents on family.person.Name=family.parents.ChildName;
```

Name	Age	Gender	Location	ChildName	MomName	DadName
Amutha	45	Female	Trichy	Amutha	Govind	Viji
Ravi	52	Female	Trichy	NULL	NULL	NULL
Shivani	19	Female	Chennai	Shivani	Amutha	Ravi

RIGHT JOIN

```
28 • select family.person.Name,family.parents.ChildName from family.person right join family.parents on family.person.Name=family.parents.ChildName;
29 • select * from family.person right join family.parents on family.person.Name=family.parents.ChildName;
```

Name	ChildName
Amutha	Amutha
Shivani	Shivani
NULL	Tamil
NULL	Vijay

```
28 • select family.person.Name,family.parents.ChildName from family.person right join family.parents on family.person.Name=family.parents.ChildName;
29 • select * from family.person right join family.parents on family.person.Name=family.parents.ChildName;
```

Name	Age	Gender	Location	ChildName	MomName	DadName
Amutha	45	Female	Trichy	Amutha	Govind	Viji
Shivani	19	Female	Chennai	Shivani	Amutha	Ravi
NULL	NULL	NULL	NULL	Tamil	Raja	Suba
NULL	NULL	NULL	NULL	Vijay	Durai	Praveena

CROSS JOIN

The screenshot shows a database interface with two SQL queries and their corresponding result grids. The first query is:

```
select family.person.Name, family.parents.ChildName from family.person cross join family.parents where family.person.Name=family.parents.ChildName;
```

The second query is:

```
select * from family.person cross join family.parents where family.person.Name=family.parents.ChildName;
```

The first result grid shows the following data:

Name	Age	Gender	Location	ChildName	MomName	DadName
Amutha	45	Female	Trichy	Amutha	Govind	Viji
Shivani	19	Female	Chennai	Shivani	Amutha	Ravi

The second result grid shows the following data:

Name	ChildName
Amutha	Amutha
Shivani	Shivani

CREATE, UPDATE, DELETE COMMANDS IN MONGODB

CREATE family database and person collection

The screenshot shows the MongoDB Compass interface. The top bar indicates the connection to localhost:27017/admin. The left sidebar shows the database structure with the following collections:

- admin
- config
- family
 - person
- local

The right sidebar shows the 'Collections' tab with a '+ Create collection' button and a 'Refresh' button. Below the sidebar, the MongoDB shell output is shown:

```
>_MONGOSH
> use family
< switched to db family
> db.createCollection('person')
< { ok: 1 }
family>
```

INSERT Command

MongoDB Compass - localhost:27017/family.person
Connect Edit View Help

localhost:27017 Documents family.person

My Queries
Databases
Search
admin
config
family
person
local

family.person
Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

ADD DATA EXPORT DATA

```
{
  "_id": ObjectId("6473800c54fa7d71b480ac37"),
  "Name": "Ranjana",
  "Age": "20",
  "Gender": "Female",
  "Location": "Trichy"
}
```

```
>_MONGOSH
> use family
< switched to db family
> db.createCollection('person')
< { ok: 1 }
> db.person.insertOne({ Name: "Ranjana", Age: "20", Gender: "Female", Location: "Trichy"})
< {
  acknowledged: true,
  insertedId: ObjectId("6473800c54fa7d71b480ac37")
}
```

INSERT Many Command

```
>_MONGOSH
> db.person.insertMany([{Name:"Shivani", Age:"19", Gender:"Female", Location:"Trichy"},{Name:"Tamil", Age:"18", Gender:"Male", Location:"Chennai"}])
< {
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("64738b3d54fa7d71b480ac38"),
    '1': ObjectId("64738b3d54fa7d71b480ac39")
  }
}
family>|
```

Documents family.person

family.person 0 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT DATA 1 - 3 of 3

```
{
  "_id": ObjectId("6473800c54fa7d71b480ac37"),
  "Name": "Ranjana",
  "Age": "20",
  "Gender": "Female",
  "Location": "Trichy"
}
```

```
{
  "_id": ObjectId("64738b3d54fa7d71b480ac38"),
  "Name": "Shivani",
  "Age": "19",
  "Gender": "Female",
  "Location": "Trichy"
}
```

```
{
  "_id": ObjectId("64738b3d54fa7d71b480ac39"),
  "Name": "Tamil",
  "Age": "18",
  "Gender": "Male",
  "Location": "Chennai"
}
```

Creating parents parents collection and insert

MongoDB Compass - localhost:27017/family.parents
Connect Edit View Collection Help

localhost:27017 Documents family.parents

My Queries
Databases
Search
admin
config
family
parents
person
local

family.parents
Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

ADD DATA EXPORT DATA

```
{
  "_id": ObjectId("64738e1254fa7d71b480ac3a"),
  "ChildName": "Ranjana",
  "MomName": "Amutha",
  "DadName": "Ravi"
}
```

```
>_MONGOSH
> db.parents.insertOne({ChildName:"Ranjana", MomName:"Amutha", DadName:"Ravi"})
< {
  acknowledged: true,
  insertedId: ObjectId("64738e1254fa7d71b480ac3a")
}
family>
```

FIND Command

MongoDB Compass - localhost:27017/family.parents
Connect Edit View Collection Help

localhost:27017 Documents family.parents

My Queries
Databases
Search
admin
config
family
parents
person
local

family.parents
Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

ADD DATA EXPORT DATA

```
{
  "_id": ObjectId("64738e1254fa7d71b480ac3a"),
  "ChildName": "Ranjana",
  "MomName": "Amutha",
  "DadName": "Ravi"
}
```

```
>_MONGOSH
> db.parents.find()
< {
  "_id": ObjectId("64738e1254fa7d71b480ac3a"),
  "ChildName": 'Ranjana',
  "MomName": 'Amutha',
  "DadName": 'Ravi'
}
family>
```


MongoDB Compass - localhost:27017/family.person
Connect Edit View Collection Help



My Queries

Databases

Search

- admin
- config
- family
 - parents
 - person
- local

family.person

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

ADD DATA EXPORT DATA

```
{
  "_id": ObjectId('6473800c54fa7d71b480ac37'),
  "Name": "Ranjana",
  "Age": "20",
  "Gender": "Female",
  "Location": "Trichy"
}
```

```
{
  "_id": ObjectId('6473803d54fa7d71b480ac38'),
  "Name": "Shivani",
  "Age": "19",
  "Gender": "Female",
  "Location": "Trichy"
}
```

```
{
  "_id": ObjectId('6473803d54fa7d71b480ac39'),
  "Name": "Tamil"
}
```

>_MONGOSH

```
> db.person.find({Name:"Ranjana"})
```

```
< {
  "_id": ObjectId("6473800c54fa7d71b480ac37"),
  "Name": 'Ranjana',
  "Age": '20',
  "Gender": 'Female',
  "Location": 'Trichy'
}
family>
```

UPDATE Command

MongoDB Compass - localhost:27017/family.parents
Connect Edit View Collection Help



My Queries

Databases

Search

- admin
- config
- family
 - parents
 - person
- local

family.parents

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

ADD DATA EXPORT DATA

```
{
  "_id": ObjectId('647380e1254fa7d71b480ac3a'),
  "ChildName": "Ranjana",
  "MomName": "Amutha",
  "DadName": "Ravi",
  "Name": "Tarini"
}
```

>_MONGOSH

```
> db.parents.updateOne({ChildName:"Ranjana"}, {$set: {Name:"Tarini"}})
```

```
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
family>
```

DELETE Command

MongoDB Compass - localhost:27017/family.parents

Connect Edit View Collection Help

localhost:27017 Documents family.parents

My Queries Databases Search

admin config family

parents person local

family.parents Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' }

ADD DATA EXPORT DATA

This command
It only takes a few sec

```
> _MONGOOSH
> db.parents.deleteOne({ChildName:"Ranjana"})
< {
  acknowledged: true,
  deletedCount: 1
}
family>
```