1. **Database Creation:**

|  |  |
| --- | --- |
| **user30b** | **user34b** |
| **SQL> connect user30b;**  **Enter password:**  **Connected.**  **SQL> create public database link linky connect to user34b identified by user34b**  **using 'XE';**  **Database link created.**  **SQL> create table emp1(id int PRIMARY KEY,name varchar(8), department varchar(10**  **),company varchar(10));**  **Table created.**  **SQL> insert into emp1(id,name,department,company) values(1,'satyen','comps','jpm**  **organ');**  **1 row created.** | **SQL> connect user34b;**  **Enter password:**  **Connected.**  **SQL> create table emp2(id int PRIMARY KEY,name varchar(8), department varchar(10**  **),company varchar(10));**  **Table created.**  **SQL> create table emp3(id int PRIMARY KEY,name varchar(8), department varchar(10**  **),company varchar(10));**  **Table created.** |

1. **Horizontal Fragmentation:**

|  |  |
| --- | --- |
| **user30b** | **user34b** |
| **SQL> create or replace trigger th**  **2 after insert on emp1**  **3 for each row when(new.id is NOT NULL)**  **4 begin if:new.department='comps' then insert into emp2@linky values(:new.id,**  **:new.name,:new.department,:new.company);**  **5 else insert into emp3@linky values(:new.id,:new.name,:new.department,:new.c**  **ompany);**  **6 end if;**  **7 end;**  **8 /**  **Trigger created.**  **SQL> insert into emp1(id,name,department,company) values(2,'nikita','comps','TCS**  **');**  **1 row created.**  **SQL> insert into emp1(id,name,department,company) values(3,'kaustubh','elec','jp**  **morgan');**  **1 row created.**  **SQL> commit;**  **Commit complete.** | **SQL> select \* from emp2;**  **ID NAME DEPARTMENT COMPANY**  **---------- -------- ---------- ----------**  **2 nikita comps TCS**  **SQL> select \* from emp3;**  **ID NAME DEPARTMENT COMPANY**  **---------- -------- ---------- ----------**  **3 kaustubh elec jpmorgan** |

1. **Vertical Fragmentation:**

|  |  |
| --- | --- |
| **user30b** | **user34b** |
| **SQL> create or replace trigger tv**  **2 after insert on emp1**  **3 for each row when(new.id is NOT NULL)**  **4 begin insert into emp4@linky values(:new.id,:new.name,:new.department);**  **5 insert into emp5@linky values(:new.id,:new.company);**  **6 end;**  **7 /**  **Trigger created.**  **SQL> insert into emp1(id,name,department,company) values (24,'akash','comps','St**  **upidsid');**  **1 row created.**  **SQL> commit;**  **Commit complete.** | **SQL> select \* from emp4;**  **ID NAME DEPARTMENT**  **---------- -------- ----------**  **24 akash comps**  **SQL> select \* from emp5;**  **ID COMPANY**  **---------- ----------**  **24 Stupidsid** |

1. **Hybrid Fragmentation:**

|  |
| --- |
| **user 34b** |
| **SQL> insert into H1(id,name,department) values(22,'abhishek','elec');**  **1 row created.**  **SQL> insert into H1(id,name,department) values(5,'chintan','comps');**  **1 row created.**  **SQL> insert into H2(id,company) values(4,'TCS');**  **1 row created.**  **SQL> insert into H2(id,company) values(5,'Accenture');**  **1 row created.**  **SQL> create table H1(id int PRIMARY KEY,name varchar(8), department varchar(10))**  **;**  **Table created.**  **SQL> create table H2(id int PRIMARY KEY,company varchar(10));**  **Table created.**  **SQL> create or replace trigger th**  **2 after insert or update on emp2**  **3 for each row when(new.id is NOT NULL)**  **4 begin insert into H1 values(:new.id,:new.name,:new.department);**  **5 insert into H2 values(:new.id,:new.company);**  **6 end;**  **7 /**  **Trigger created.**  **SQL> insert into emp2(id,name,department,company) values(73,'akshay','comps','ca**  **pgeminey');**  **1 row created.**  **SQL> select \* from H1;**  **ID NAME DEPARTMENT**  **---------- -------- ----------**  **22 abhishek elec**  **5 chintan comps**  **73 akshay comps**  **SQL> select \* from H2;**  **ID COMPANY**  **---------- ----------**  **4 TCS**  **5 Accenture**  **73 capgeminey** |

1. **Completeness**

**A)Horizontal:**

|  |
| --- |
| **user34b** |
| **SQL> select \* from emp2 UNION select \* from emp3;**  **ID NAME DEPARTMENT COMPANY**  **---------- -------- ---------- ----------**  **2 nikita comps TCS**  **3 kaustubh elec jpmorgan**  **24 akash comps Stupidsid**  **73 akshay comps capgeminey** |

**b)Vertical:**

|  |
| --- |
| **user34b** |
| **SQL> select \* from H1 NATURAL JOIN H2;**  **ID NAME DEPARTMENT COMPANY**  **---------- -------- ---------- ----------**  **5 chintan comps Accenture**  **73 akshay comps capgeminey** |