**Step 6: Queries**

**Answers to 6 questions**

1. Who are employees with job type A?

Emp# Name

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444 Mary Manager

456 Matt Lite

(2 rows affected)

(1 row affected)

Projection: select Emp#,Name from Employee

Selection: where JobType='A'

1. How many employees are working in Columbus, IN?

No\_of\_Employee\_work\_in\_Columbus

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4

(1 row affected)

(1 row affected)

Projection: select COUNT(E.Emp#) as No\_of\_Employee\_work\_in\_Columbus

Selection:where C.CityName = 'Columbus, IN'

JOIN: Employee as E Join ProjectLocation as P ON E.Emp# = P.Emp#

Join City as C ON P.CityID = C.CityID

1. List, by department, who works in each department?

DeptID Name

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ADMN Sam Supervisor

CE Bill Builder

CUST Mark Black

CUST Mary Manager

EE Fred Sparks

EE Matt Lite

HEAT Joe Cool

UENG John Dough

UENG Mary Smith

UENG Prem Chand

(10 rows affected)

(1 row affected)

Projection:select D.DeptID,E.Name

Selection:group by D.DeptID,E.Name order by D.DeptID,E.Name

JOIN: Department as D JOIN Employee as E ON D.DeptID = E.DeptID

1. Which employees have taken the Office tools course since July 10, 2013?

Emp# Name

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444 Mary Manager

(1 row affected)

(1 row affected)

Projection: select Employee.Emp#,Employee.Name

Selection:where Admin.courseDate >= '2013-07-10'

JOIN: Employee JOIN Admin ON Employee.Emp#=Admin.Emp#

1. List the names of the projects and their cities Bill Builder is working on.

ProjectDescription CityName

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Roundabout Design Carmel, IN

Roundabout Design Columbus, IN

Replace gas lines Springfield, IL

Flood Control Springfield, OH

(4 rows affected)

(1 row affected)

Projection: select P.ProjectDescription,C.CityName

Selection:where E.Name = 'Bill Builder'

JOIN:Employee as E Join ProjectLocation as PL ON E.Emp# = PL.Emp#

Join City as C ON PL.CityID = C.CityID

Join Project as P ON PL.Project# = P.Project#

1. To whom is Mary Manager married and on what date did the marriage occur.

Name MarriageDate

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Matt Lite 2014-08-01

(1 row affected)

(1 row affected)

Projection: Select E1.Name,E1.MarriageDate

Selection: where E.name='Mary Manager'

JOIN: Employee as E Join Employee as E1 ON E.Emp# = E1.MarriedTo

**A Screen snapshot of the query plan for query 5 above**

select P.ProjectDescription,C.CityName from Employee as E

JOIN ProjectLocation as PL ON E.Emp# = PL.Emp#

JOIN City as C ON PL.CityID = C.CityID

JOIN Project as P ON PL.Project# = P.Project#

where E.Name = 'Bill Builder'

A screenshot of a video game

Description generated with high confidence