

--A3 Jayden Decena

--1.

```
SELECT
    pnumber
    pname,
    dnum
FROM
    project
WHERE
    plocation = 'Houston';
```

--2.

```
SELECT
    fname,
    lname,
    salary
FROM
    employee, department
WHERE
    dname ='Research'
ORDER BY
    salary DESC;
```

--3.

```
SELECT
    e1.ssn AS SSN1,
    e2.ssn AS SSN2
FROM
    employee e1
JOIN
    employee e2 ON e1.salary > e2.salary
WHERE
    e1.ssn <> e2.ssn;
```

--4.

```
SELECT
    SUPERSSN,
    COUNT(*) AS MANAGES__EMPLOYEES
FROM
    EMPLOYEE
WHERE
    SUPERSSN IS NOT NULL
GROUP BY
    SUPERSSN;
```

--5.

```
SELECT
    fname,
    lname,
    salary
FROM
    employee e
WHERE
    salary > (
        SELECT
            AVG(salary)
        FROM
            employee
        WHERE
            dno = e.dno
    );
```

--6.

```
SELECT
    d.dname AS DPTNAME,
    COUNT(e.SSN) AS NUMOFEMPLOYEE
FROM
    department d
JOIN
    employee e ON d.dnumber = e.dno
GROUP BY
    d.dname, d.dnumber
HAVING
    AVG(e.salary) > 32000;
```

--7.

```
SELECT
    d.dname AS DEPTNAME,
    AVG(e.salary) AS AVGDEPTSALARY
FROM
    department d
JOIN
    employee e ON d.dnumber = e.dno
GROUP BY
    d.dname, d.dnumber
HAVING
    AVG(e.salary) > (
        SELECT
            AVG(salary)
```

```

FROM
    employee
);
--8.
SELECT
    p.pnumber AS ProjectNumber,
    p.pname AS ProjectName
FROM
    project p
WHERE
    NOT EXISTS (
        SELECT
            e.ssn
        FROM
            employee e
        WHERE
            e.dno = (SELECT dnumber FROM department WHERE dname = 'Administration')
            AND e.ssn NOT IN (
                SELECT
                    w.essn
                FROM
                    works_on w
                WHERE
                    w.pno = p.pnumber
            )
    );
---9.
SELECT
    e.Ssn,
    e.Fname,
    e.Lname
FROM
    Employee e
JOIN
    Works_On w ON e.Ssn = w.Essn
JOIN
    Project p ON w.Pno = p.Pnumber
WHERE
    p.Pname LIKE 'Product%';
--10.
SELECT
    e.Fname AS First,
    e.Lname AS Last
FROM
    EMPLOYEE e,
    PROJECT p,
    WORKS_ON w
WHERE
    e.Ssn = w.Essn
    AND p.Pnumber = w.Pno
    AND w.Pname = 'Computerization'
    AND w.Hours > 10;

```