

Homework 3

1.

- a. CHECK (weight <= 5)
- b. CREATE TRIGGER T
AFTER INSERT ON Laptop
REFERENCING NEW ROW AS row
FOR EACH ROW
WHEN nrow.weight > 5
BEGIN
UPDATE Laptop SET
weight = NULL WHERE
model = nrow.model
END

2. CREATE ASSERTION Foreign_Key

```
CHECK ( S.a IN (
        SELECT R.a
        FROM R ) );
```

3. A		B
1		8
100		0
100		0

4.

- a. CREATE VIEW EmployeeNames AS
SELECT ename
FROM Employees;

CREATE VIEW DeptInfo AS
SELECT dept, AVG(salary) AS avgsalary
FROM Employees
GROUP BY dept;
- b. GRANT SELECT, DELETE ON Employees(ename) TO MIKE;
GRANT SELECT ON DeptInfo(avgsalary) TO MIKE;
- c. The secretary cannot find out salaries of individuals because he only has select and delete access to the ename attribute, not the salary attribute of the Employee table.
- d. UPDATE DeptInfo

```
SET avgsalary = 90000  
WHERE dept = 'CS';
```

- e. GRANT ALL PRIVILEGES ON Employees TO JOE WITH GRANT OPTION;
Yes, Joe can read the DeptInfo view because the database performs queries on DeptInfo by referencing Employees.
- f. REVOKE GRANT OPTION FOR ALL PRIVILEGES ON Employees
FROM JOE CASCADE;
All views would remain, but any privileges that Joe had granted to others would be revoked.