

Project 2, Group 11

Task 1

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Inner Join

Select vendor parts with both mfg and vendor

```
SELECT * FROM Vendor_parts AS VP INNER JOIN Manufacturers AS M ON  
VP.Manufacturer_id = M.Manufacturer_id INNER JOIN Vendors AS V ON VP.Vendor_id =  
V.Vendor_id;
```

Outer join

Select manufacturers and their parts, including those with no parts

```
SELECT * FROM Vendor_parts AS VP RIGHT OUTER JOIN Manufacturers AS M ON  
VP.Manufacturer_id = M.Manufacturer_id;
```

Natural join

Natural join of parts / type_attributes

```
SELECT * FROM Parts AS P NATURAL LEFT JOIN Capacitor_attributes AS A NATURAL LEFT  
JOIN Part_types AS T WHERE T.Type = "Capacitor"
```

Aggregate function

Count of each type of part

```
SELECT Type, COUNT(Part_num) FROM Parts NATURAL JOIN Part_types GROUP BY  
Part_type_id
```

Commit and Rollback

```
begin  
Insert part  
if part_num match d3_% then commit  
else rollback
```

Trigger

Add null attributes tuple upon new part?

```
DELIMITER $$  
CREATE TRIGGER trgNewPart AFTER INSERT ON Parts  
FOR EACH ROW  
BEGIN  
    CASE NEW.Part_type_id  
        WHEN 0 THEN INSERT INTO Capacitor_attributes (Part_num) VALUES (NEW.Part_num);  
        WHEN 1 THEN INSERT INTO Memory_attributes (Part_num) VALUES (NEW.Part_num);
```

```

        WHEN 2 THEN INSERT INTO Connector_attributes (Part_num) VALUES
(NEW.Part_num);
    END CASE;
END;$$
DELIMITER ;

```

Trigger (another trigger)

Delete attributes tuple upon deletion

```

DELIMITER $$
CREATE TRIGGER trgNewPart BEFORE DELETE ON Parts
FOR EACH ROW
BEGIN
    CASE NEW.Part_type_id
        WHEN 0 THEN DELETE FROM Capacitor_attributes WHERE Part_num =
NEW.Part_num;
        WHEN 1 THEN DELETE FROM Memory_attributes WHERE Part_num = NEW.Part_num;
        WHEN 2 THEN DELETE FROM Connector_attributes WHERE Part_num =
NEW.Part_num;
    END CASE;
END;$$
DELIMITER ;

```

Stored Procedure

Update bom cost with current pricing

```

DELIMITER $$
CREATE PROCEDURE updateBom(PCA_id VARCHAR(16), BOM_rev VARCHAR(5))
BEGIN
    DECLARE item_num INT;
    DECLARE Part_num CHAR(16);
    DECLARE done INT DEFAULT FALSE;
    DECLARE cBom CURSOR FOR SELECT Item_num,Part_num FROM BillofMaterials AS
BOM WHERE BOM.PCA_id = PCA_id AND BOM.BOM_rev = BOM_rev;
    DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;

    OPEN cBom;
    read_loop: LOOP
        FETCH cBom INTO item_num, Part_num;
        UPDATE BillofMaterials AS BOM
        SET
            Price_qty_1 = (SELECT MAX(PB.Price) FROM Price_Break as PB WHERE
PB.Part_num = Part_num AND Price < 1)
        WHERE

```

```

        BOM.PCA_id = PCA_id AND BOM.BOM_rev = BOM_rev AND BOM.Item_num =
item_num;
    UPDATE BillOfMaterials AS BOM
    SET
        Price_qty_1000 = (SELECT MAX(PB.Price) FROM Price_Break as PB WHERE
PB.Part_num = Part_num AND Price < 1000)
    WHERE
        BOM.PCA_id = PCA_id AND BOM.BOM_rev = BOM_rev AND BOM.Item_num =
item_num;
    END LOOP;
    CLOSE cBom;
END;$$
DELIMITER ;

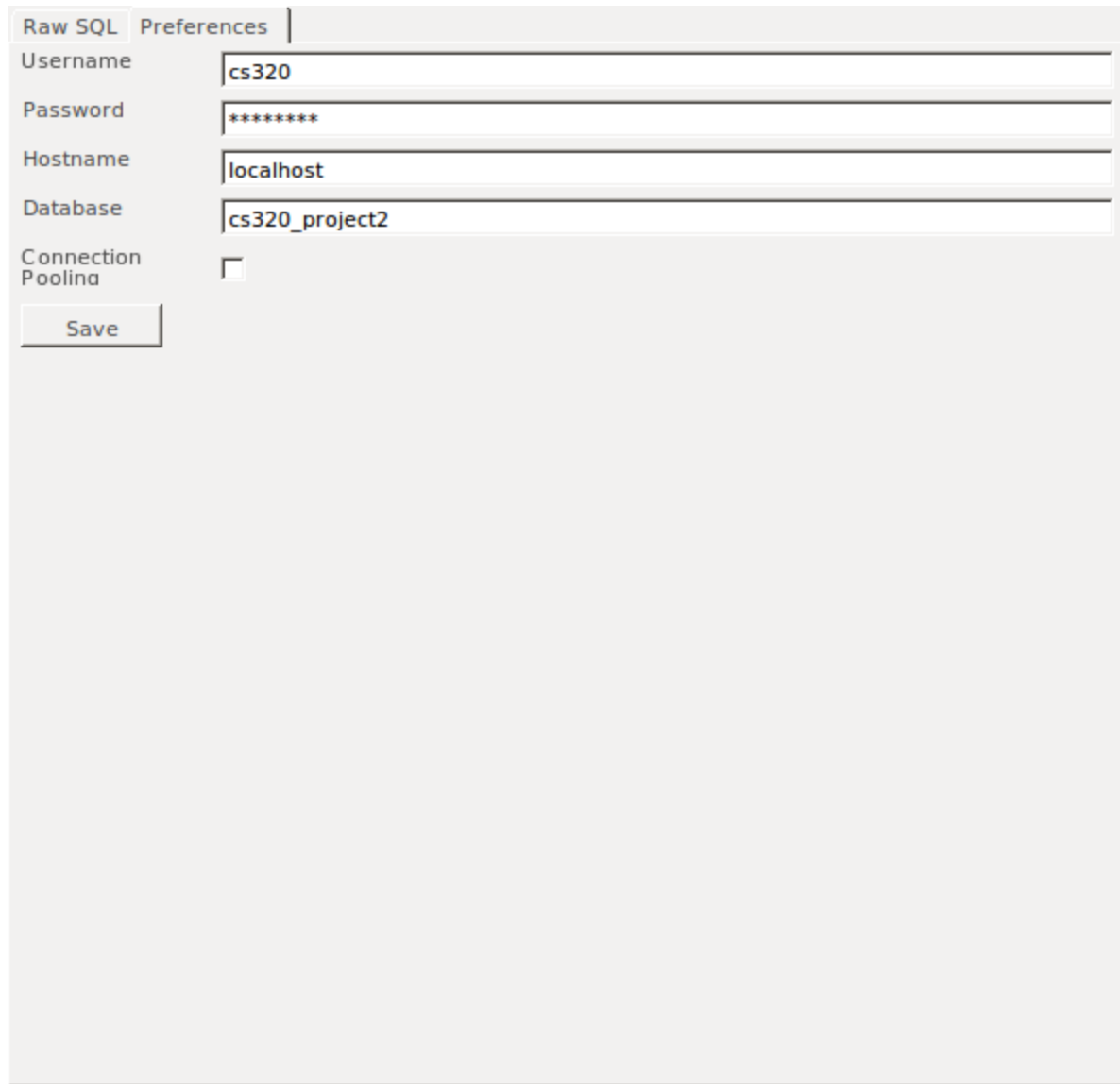
```

Stored Procedure

Check conditions

?

Screen shots



A screenshot of a database connection preferences window. The window has a tabbed interface with two tabs: "Raw SQL" and "Preferences". The "Preferences" tab is currently selected. The form contains the following fields and controls:

- Username:** A text input field containing the value "cs320".
- Password:** A text input field containing seven asterisks "*****".
- Hostname:** A text input field containing the value "localhost".
- Database:** A text input field containing the value "cs320_project2".
- Connection Pooling:** A checkbox that is currently unchecked.
- Save:** A button located at the bottom left of the form.

Raw SQL | Preferences |

SHOW DATABASES;

Execute

	Database
►	information_...
	cs320_project2
	test
*	

Raw SQL | Preferences |

SELECT * FROM Parts;

Execute

	Part_num	Part_type_id	Part_sub_type	Value	Description	Sch
▶	D3-0000045	0	Ceramic/SMT...	4.7uF	CAP 4.7UF 50V	D3_
	D3-0000046	0	Al. Electrolytic	220uF	CAP 220UF 50V	D3_
	D3-0000047	0	Al. Electrolytic	330uF	CAP 330UF 6.3V	D3_
	D3-0000048	0	Tantalum	10uF	CAP 10UF 16V	D3_
	D3-0000049	0	Metalized PPS	0.1uF	CAP 0.1UF 50V	D3_
	D3-0000050	0	Tantalum	6.8uF	CAP 6.8UF 20V	D3_
	D3-0000051	0	Ceramic/SMT...	0.033uF	CAP 0	D3_
	D3-0000055	0	Al. Electrolytic	3300uF	CAP 3300UF	D3_
	D3-0000056	0	Al. Electrolytic	470uF	CAP 470UF	D3_
	D3-0000057	0	Al. Electrolytic	1000uF	CAP 1000UF	D3_
	D3-0000058	0	Al. Electrolytic	330uF	CAP 330UF	D3_
	D3-0000059	0	Al. Electrolytic	470uF	CAP 470UF	D3_
	D3-0000060	0	Al. Electrolytic	330uF	CAP 330UF	D3_
	D3-0000061	0	Al. Electrolvtic	470uF	CAP 470UF	D3_