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CS 340

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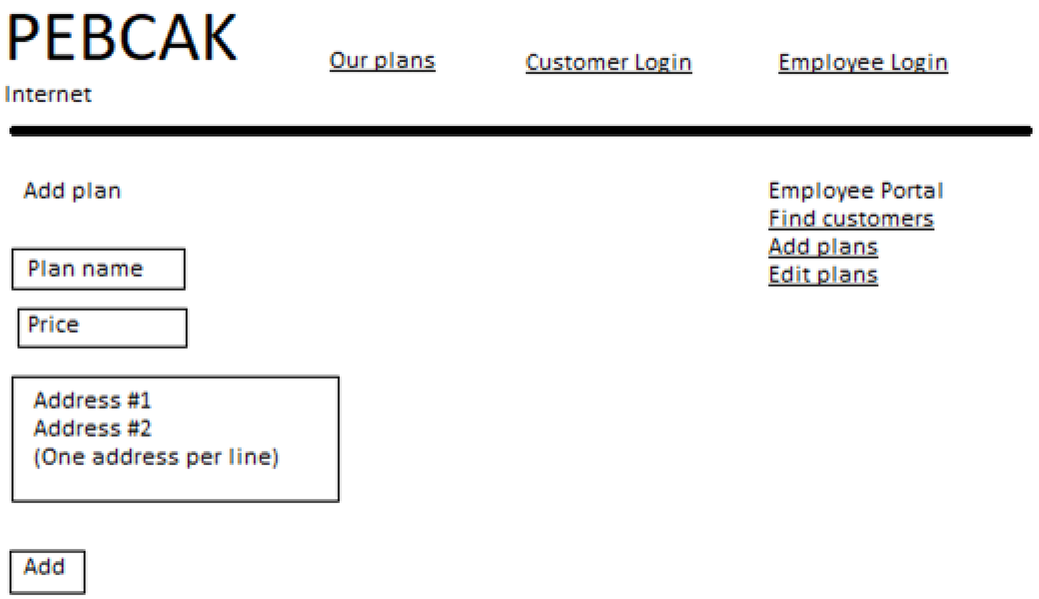
26 May 2017

Project SQL

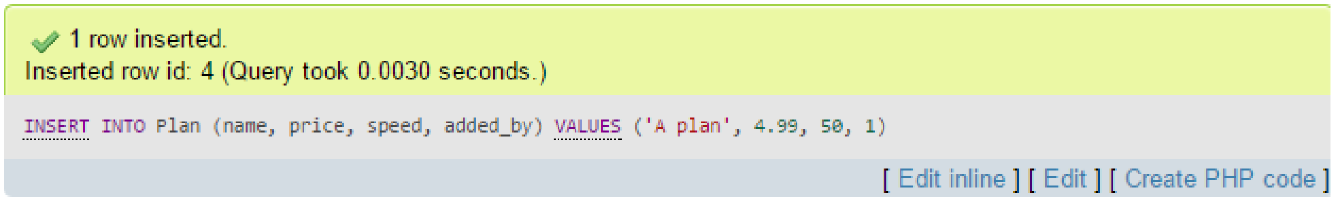
Procedures and Triggers:

```
DROP PROCEDURE IF EXISTS checkValidState;
DELIMITER $$
CREATE PROCEDURE checkValidState(s CHAR(2))
BEGIN
    IF s NOT IN ('AK', 'AL', 'AR', 'AZ', 'CA', 'CO', 'CT', 'DE',
'FL', 'GA', 'HI', 'IA', 'ID', 'IL', 'IN', 'KS', 'KY', 'LA', 'MA',
'MD', 'ME', 'MI', 'MN', 'MO', 'MS', 'MT', 'NC', 'ND', 'NE', 'NH',
'NJ', 'NM', 'NV', 'NY', 'OH', 'OK', 'OR', 'PA', 'RI', 'SC', 'SD',
'TN', 'TX', 'UT', 'VA', 'VT', 'WA', 'WI', 'WV', 'WY') THEN
        SIGNAL SQLSTATE '45000'
            SET MESSAGE_TEXT = 'That is not a valid state.';
    END IF;
END;
$$

DROP TRIGGER IF EXISTS triggerAddressState;
CREATE TRIGGER triggerAddressState
BEFORE UPDATE ON addresses
FOR EACH ROW CALL checkValidState(NEW.st);

DROP TRIGGER IF EXISTS triggerAddressState;
CREATE TRIGGER triggerAddressState
BEFORE INSERT ON addresses
FOR EACH ROW CALL checkValidState(NEW.st);
```

```
DROP PROCEDURE IF EXISTS UpdateAddressPlan;
DELIMITER $$
CREATE PROCEDURE UpdateAddressPlan(planId INT, addNum INT, addStreet
VARCHAR(255), addAptNo INT, addCity VARCHAR(255), addSt CHAR(2),
addZip DECIMAL(5))
BEGIN
    DECLARE addressId INT;
    IF NOT EXISTS(SELECT * FROM Address WHERE num = addNum AND street
= addStreet AND (addAptNo IS NULL OR apt_no = addAptNo) AND city =
addCity AND state = addSt AND zip = addZip) THEN
     BEGIN
          INSERT INTO Address (num, street, apt_no, city, state, zip)
VALUES (addNum, addStreet, addAptNo, addCity, addSt, addZip);
     END;
    END IF;
    SET addressId = (SELECT id FROM Address WHERE num = addNum AND
street = addStreet AND (addAptNo IS NULL OR apt_no = addAptNo) AND
city = addCity AND state = addSt AND zip = addZip);
    INSERT INTO Address_Plans (plan_id, address_id) VALUES (planId,
addressId);
END
$$
```



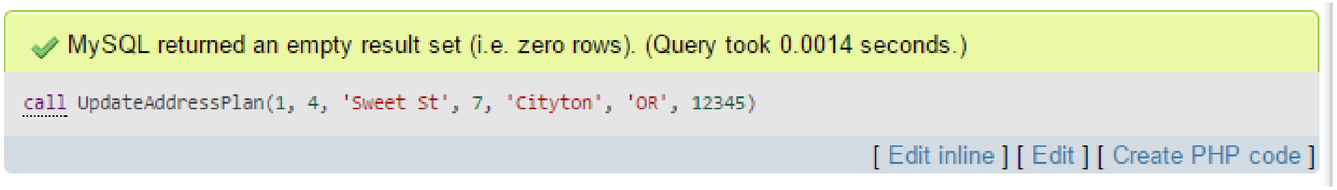
```
// Inserts a new plan into the database.
// Requires input from the user
INSERT INTO Plan (name, price, speed, added_by)
VALUES ($planName, $planPrice, $planSpeed, $employeeId)
```



✓ 1 row inserted.
Inserted row id: 4 (Query took 0.0030 seconds.)

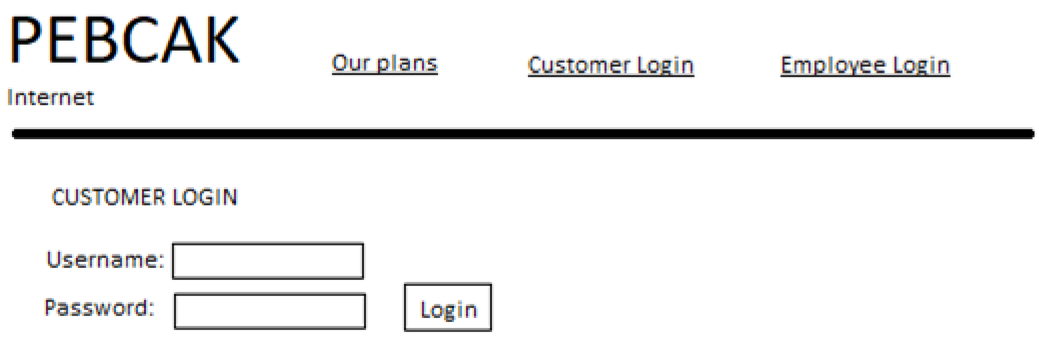
```
INSERT INTO Plan (name, price, speed, added_by) VALUES ('A plan', 4.99, 50, 1)
```

```
// For every plan in the plan box:
// Requires input from the user
call UpdateAddressPlan($newPlanId, $addressNum, $addressStreet,
$addressAptNo, $addressCity, $addressState, $addressZip)
```

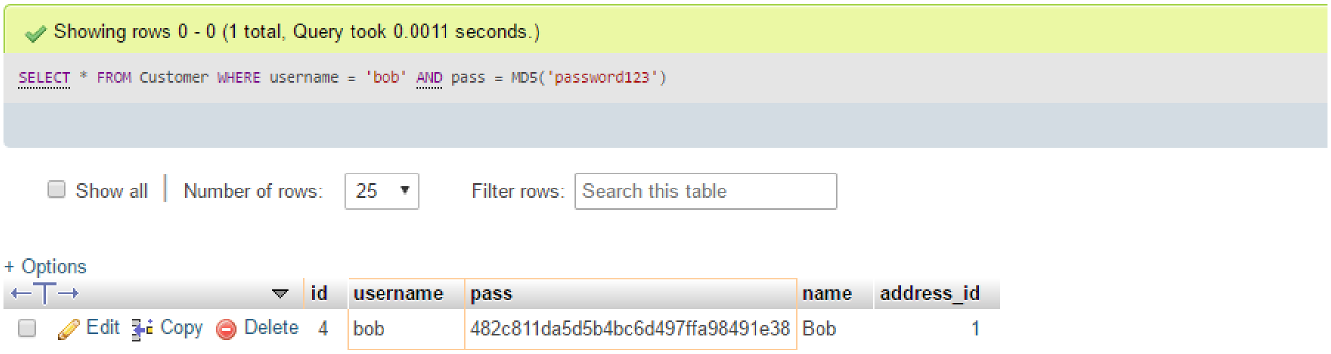


✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0014 seconds.)

```
call UpdateAddressPlan(1, 4, 'Sweet St', 7, 'Cityton', 'OR', 12345)
```



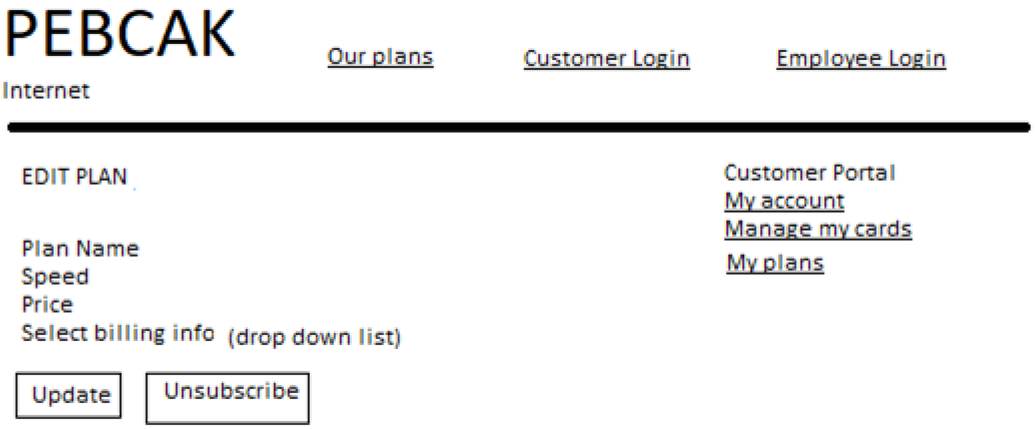
```
// Grabs customer data
// Requires input
SELECT * FROM Customer
WHERE username=$Username
AND MD5($Password)=pass_hash
```



✓ Showing rows 0 - 0 (1 total, Query took 0.0011 seconds.)

```
SELECT * FROM Customer WHERE username = 'bob' AND pass = MD5('password123')
```

←T→ ▼	id	username	pass	name	address_id
□ Edit Copy Delete	4	bob	482c811da5d5b4bc6d497ffa98491e38	Bob	1



PEBCAK
Internet

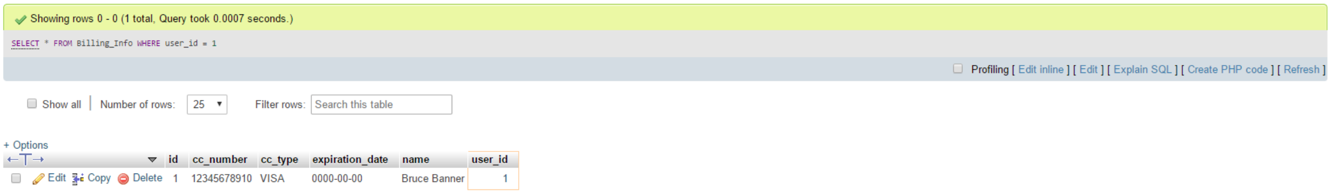
Our plans   Customer Login   Employee Login

EDIT PLAN

Plan Name
Speed
Price
Select billing info (drop down list)

Customer Portal
My account
Manage my cards
My plans

```
// Gets Billing Info for a specific user and updates their subscriptions based on
// new billing info input
// Requires no input
SELECT *
FROM Billing_Info
WHERE user_id = $customerId
```

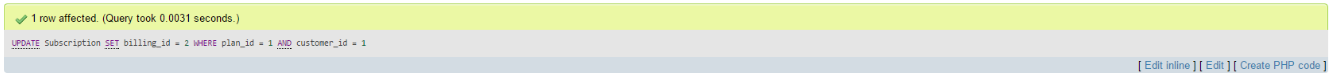


```
✓ Showing rows 0 - 0 (1 total, Query took 0.0007 seconds.)
SELECT * FROM Billing_Info WHERE user_id = 1
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
□ Show all
Number of rows: 25
Filter rows: Search this table
+ Options

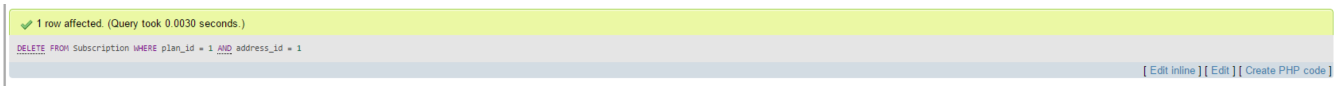
	id	cc_number	cc_type	expiration_date	name	user_id
□ Edit Copy Delete	1	12345678910	VISA	0000-00-00	Bruce Banner	1

```
// Requires input
UPDATE Subscription
SET billing_id = $newBillingId
WHERE plan_id = @planId
AND customer_id = $customerId
```

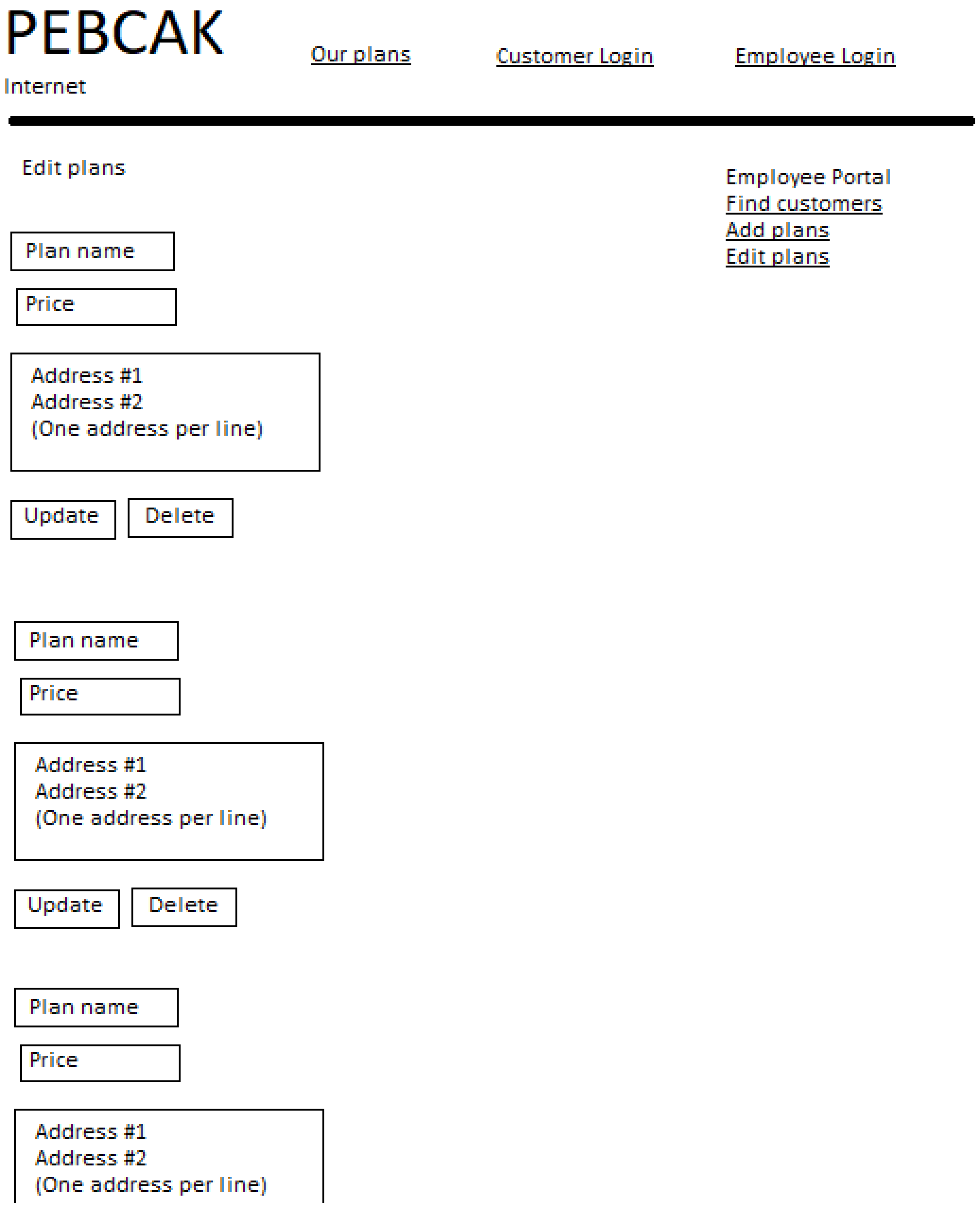


```
✓ 1 row affected. (Query took 0.0031 seconds.)
UPDATE Subscription SET billing_id = 2 WHERE plan_id = 1 AND customer_id = 1
```

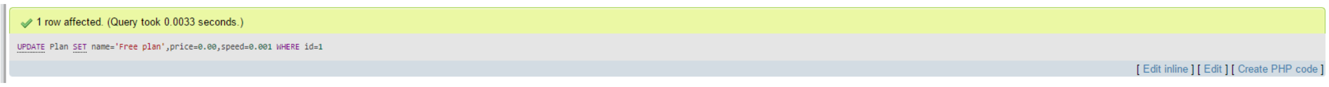
```
// Requires no input
DELETE FROM Subscription
WHERE plan_id = $planId
AND address_id = $addressId
```



```
✓ 1 row affected. (Query took 0.0030 seconds.)
DELETE FROM Subscription WHERE plan_id = 1 AND address_id = 1
```

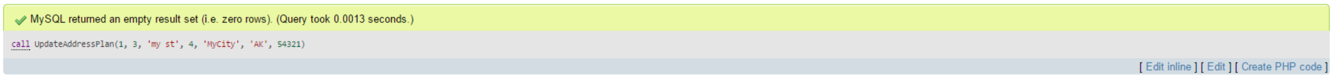


```
// Allows employees to update the various plan details.
// Requires input.
UPDATE Plan
SET name=$planName,price=$planPrice,speed=$planSpeed
WHERE id=$planId
```

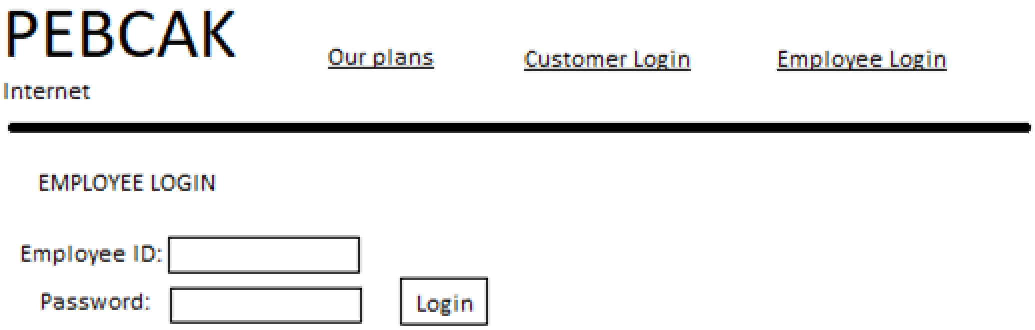

✓ 1 row affected. (Query took 0.0033 seconds.)

```
UPDATE Plan SET name='Free plan',price=0.00,speed=0.001 WHERE id=1
```

```
// For every plan in the plan box:
// Requires input (address box)
call UpdateAddressPlan($planId, $addressNum, $addressStreet,
$addressAptNo, $addressCity, $addressState, $addressZip)
```


✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0013 seconds.)

```
call UpdateAddressPlan(1, 3, 'my st', 4, 'MyCity', 'AK', 54321)
```



PEBCAK

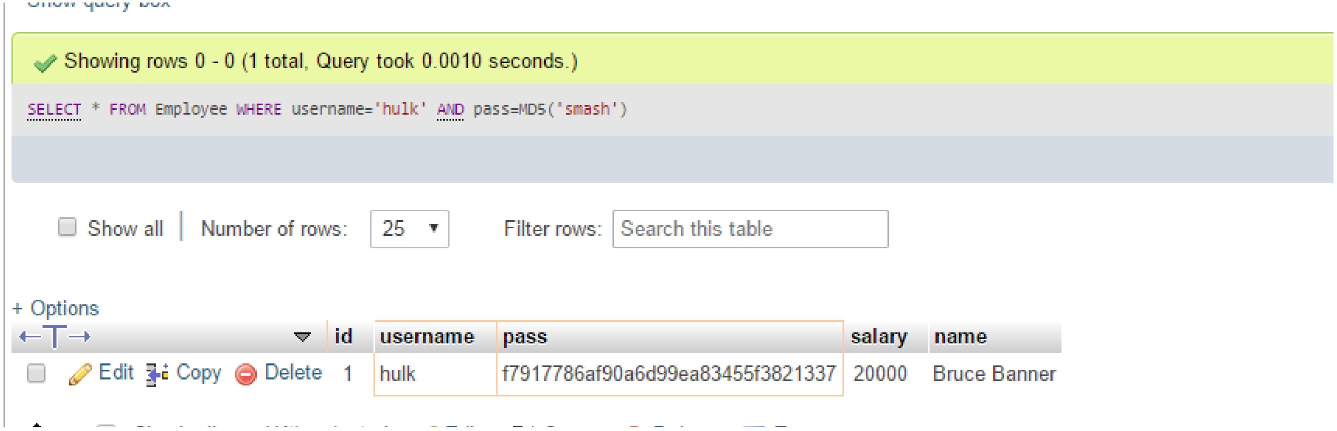
Internet

EMPLOYEE LOGIN

Employee ID:

Password:

```
// Checks whether an employee exists with the
// appropriate password
// Requires input
SELECT * FROM Employee
WHERE username = $employeeId
AND password=MD5($password)
```

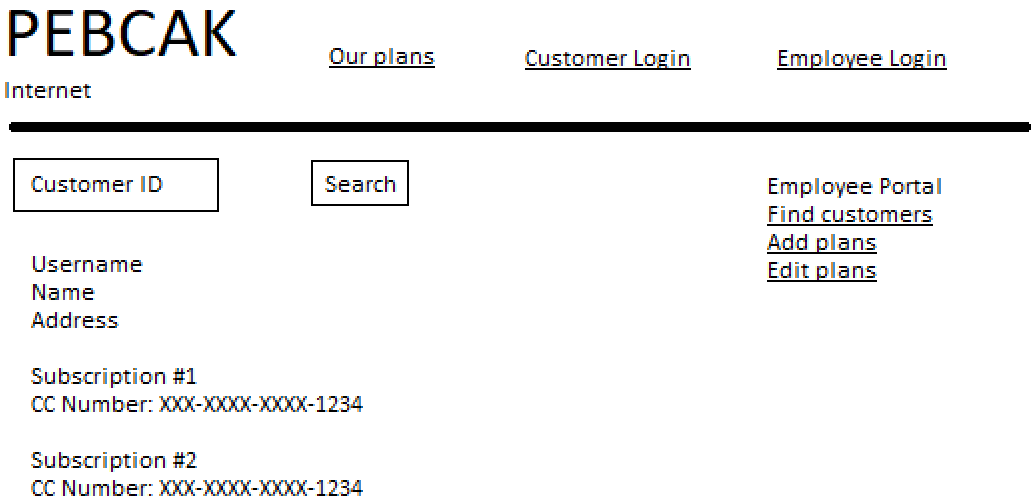


✓ Showing rows 0 - 0 (1 total, Query took 0.0010 seconds.)

```
SELECT * FROM Employee WHERE username='hulk' AND pass=MD5('smash')
```

□ Show all | Number of rows: 25 ▾ Filter rows: Search this table

	id	username	pass	salary	name
□ Edit Copy Delete	1	hulk	f7917786af90a6d99ea83455f3821337	20000	Bruce Banner

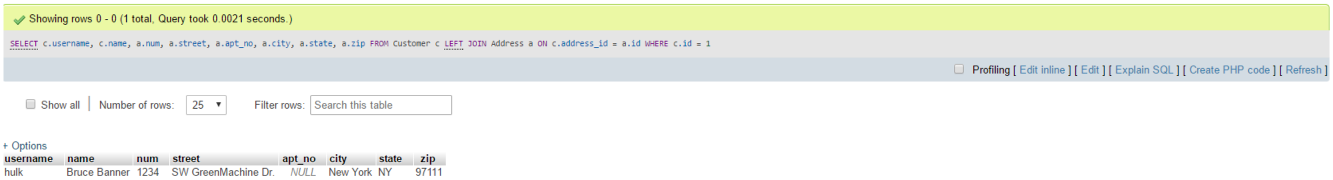


Username
Name
Address

Subscription #1
CC Number: XXX-XXXX-XXXX-1234

Subscription #2
CC Number: XXX-XXXX-XXXX-1234

```
// Gives customer information to an employee.
// Shows the username, name, address, and all of the
// billing options for a customer.
// Requires user input
SELECT c.username, c.name, a.num, a.street, a.apt_no, a.city,
a.state, a.zip
FROM Customer c
LEFT JOIN Address a
ON c.address_id = a.id
WHERE c.id = $customerId
```



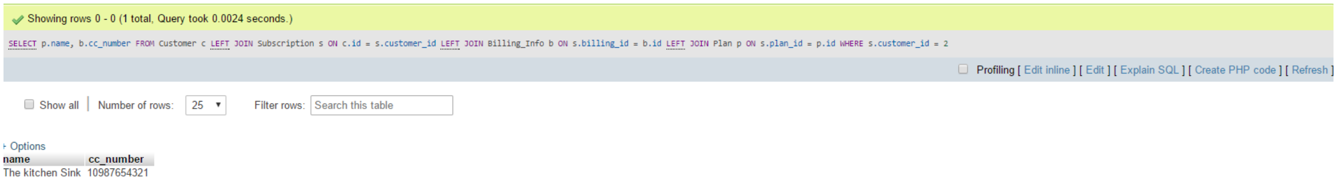
Showing rows 0 - 0 (1 total, Query took 0.0021 seconds.)

```
SELECT c.username, c.name, a.num, a.street, a.apt_no, a.city, a.state, a.zip FROM Customer c LEFT JOIN Address a ON c.address_id = a.id WHERE c.id = 1
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
□ Show all
Number of rows: 25
Filter rows: Search this table
+ Options

username	name	num	street	apt_no	city	state	zip
hulk	Bruce Banner	1234	SW GreenMachine Dr.	*NULL*	New York	NY	97111

```
SELECT  p.name, b.cc_number FROM
Customer c
LEFT JOIN Subscription s
ON c.id = s.customer_id
LEFT JOIN Billing_Info b
ON s.billing_id = b.id
LEFT JOIN Plan p
ON s.plan_id = p.id
WHERE s.customer_id = $customerId
```

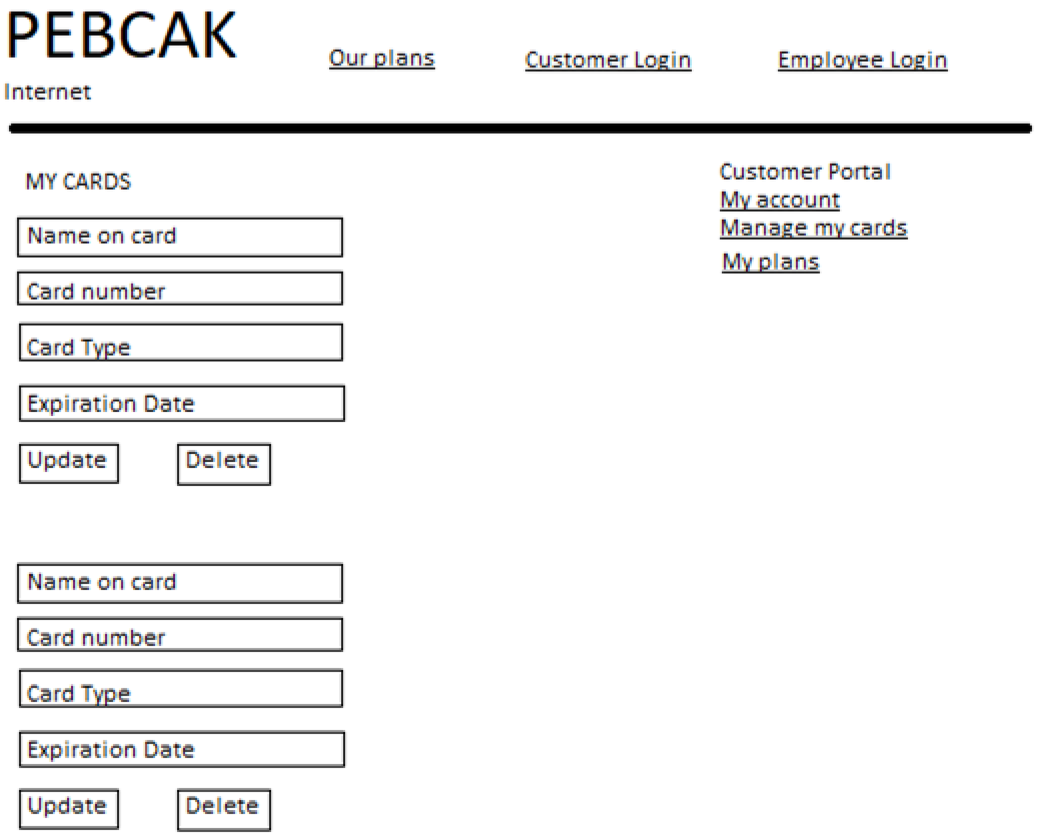


Showing rows 0 - 0 (1 total, Query took 0.0024 seconds.)

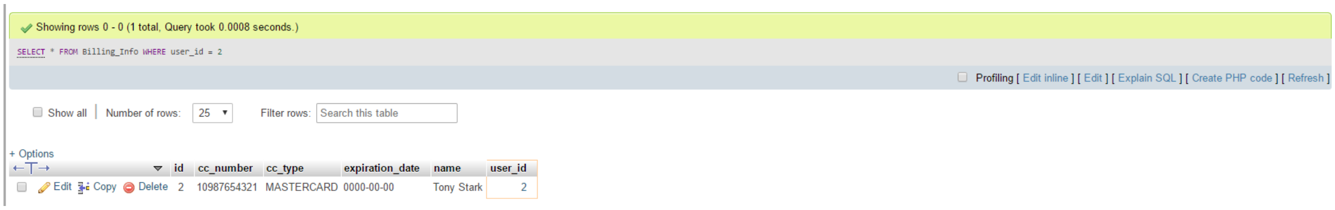
```
SELECT p.name, b.cc_number FROM Customer c LEFT JOIN Subscription s ON c.id = s.customer_id LEFT JOIN Billing_Info b ON s.billing_id = b.id LEFT JOIN Plan p ON s.plan_id = p.id WHERE s.customer_id = 2
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
□ Show all
Number of rows: 25
Filter rows: Search this table
+ Options

name	cc_number
The kitchen Sink	10987654321



```
// Shows a customer all of the cards they have entered into the
database.
// Allows the customer to edit details on any card.
// Requires user input
SELECT *
FROM Billing_Info
WHERE user_id = $user_id
```

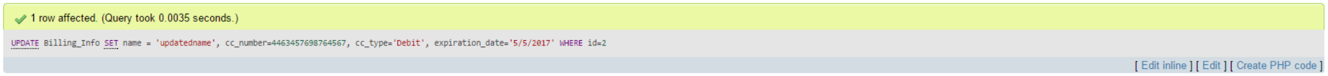


```
✓ Showing rows 0 - 0 (1 total, Query took 0.0008 seconds.)
SELECT * FROM Billing_Info WHERE user_id = 2
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
□ Show all | Number of rows: 25 ▾ Filter rows: Search this table
+ Options

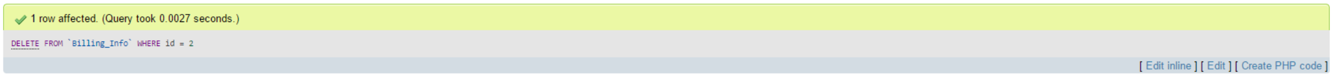
	id	cc_number	cc_type	expiration_date	name	user_id
□ Edit Copy Delete	2	10987654321	MASTERCARD	0000-00-00	Tony Stark	2

```
UPDATE Billing_Info
SET name = $name, cc_number=$number, cc_type=$type,
expiration_date=$exp
WHERE id=$cardId
```



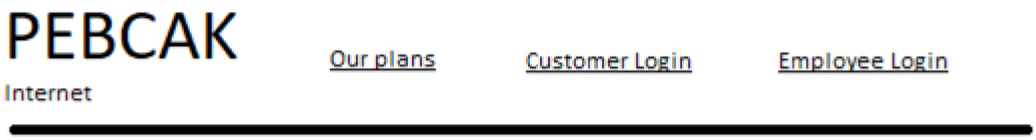
```
✓ 1 row affected. (Query took 0.0035 seconds.)
UPDATE Billing_Info SET name = 'updatedname', cc_number=4463457698764567, cc_type='Debit', expiration_date='5/5/2017' WHERE id=2
```

```
DELETE FROM Billing_Info
```



✓ 1 row affected. (Query took 0.0027 seconds.)

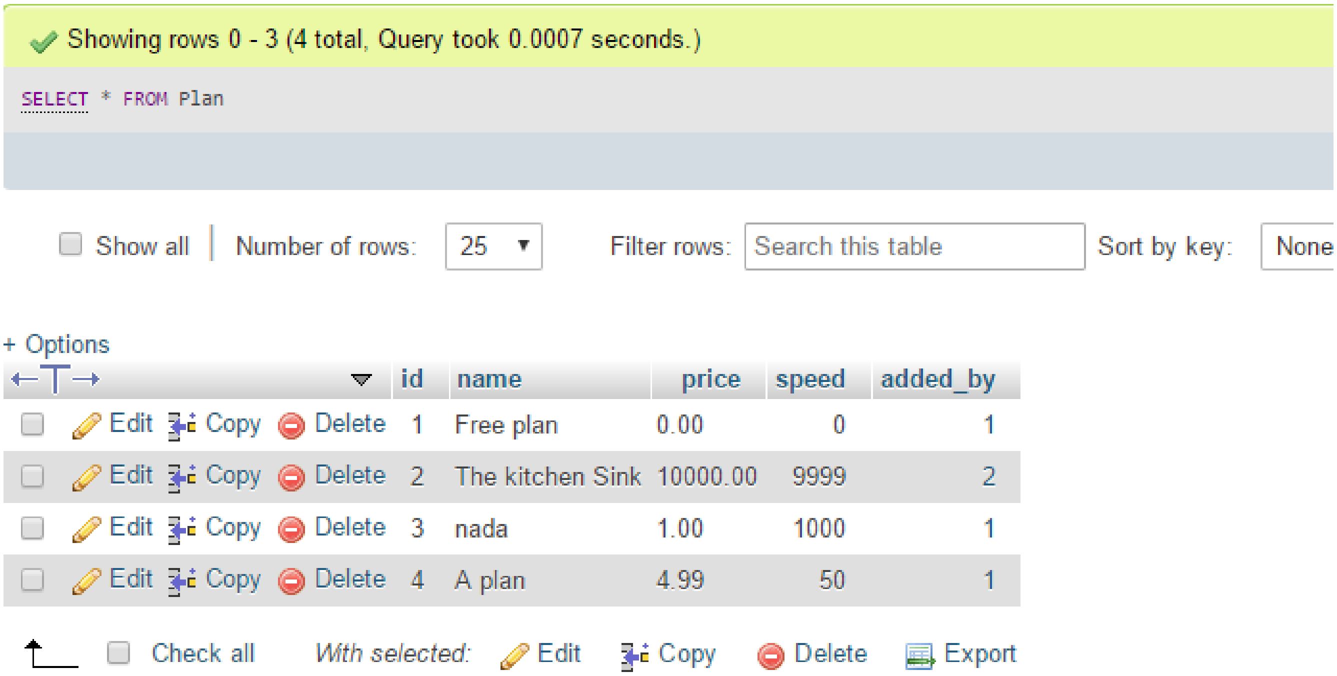
```
DELETE FROM `Billing_Info` WHERE id = 2
```



OUR PLANS

Plan name #1	Speed	Price	Available at address (only when logged in)
Plan name #2	Speed	Price	Available at address (only when logged in)

```
// Shows all plans to non-logged in users.
// Does not require input
SELECT * FROM Plan
```



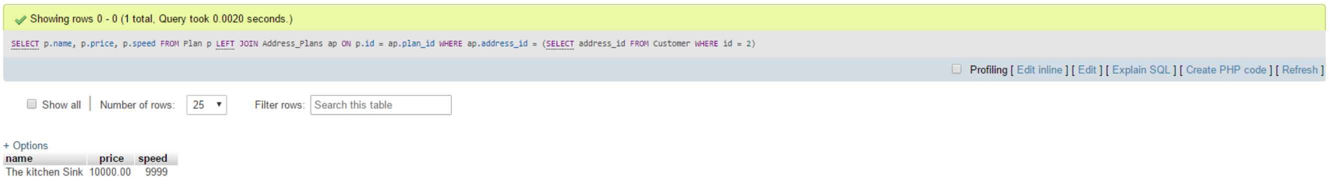
✓ Showing rows 0 - 3 (4 total, Query took 0.0007 seconds.)

```
SELECT * FROM Plan
```

□ Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

	id	name	price	speed	added_by
□ Edit Copy Delete	1	Free plan	0.00	0	1
□ Edit Copy Delete	2	The kitchen Sink	10000.00	9999	2
□ Edit Copy Delete	3	nada	1.00	1000	1
□ Edit Copy Delete	4	A plan	4.99	50	1

```
// When logged in:
// Shows all plans, and whether that plan is available at the
// user’s address.
// Does not require input
SELECT p.name, p.price, p.speed
FROM Plan p
LEFT JOIN Address_Plans ap
ON p.id = ap.plan_id
WHERE ap.address_id = (SELECT address_id FROM Customer WHERE id
= 2)
```

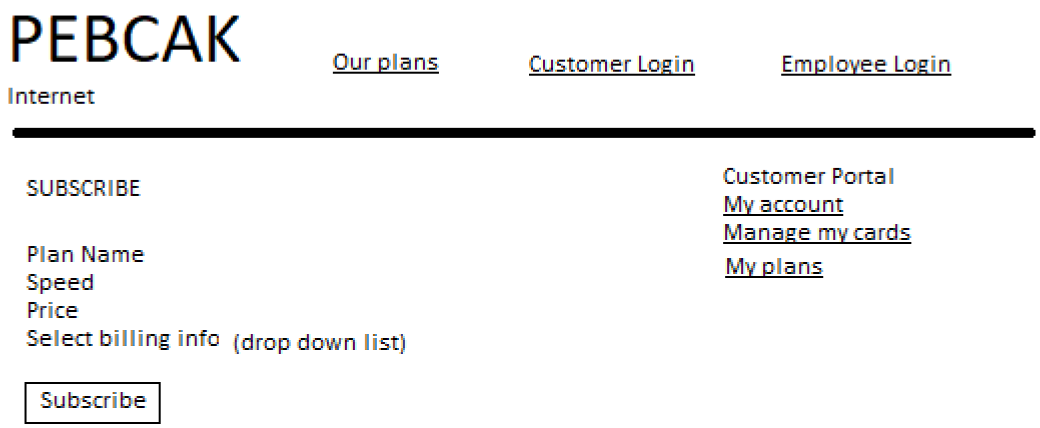


✓ Showing rows 0 - 0 (1 total, Query took 0.0020 seconds.)

```
SELECT p.name, p.price, p.speed FROM Plan p LEFT JOIN Address_Plans ap ON p.id = ap.plan_id WHERE ap.address_id = (SELECT address_id FROM Customer WHERE id = 2)
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
□ Show all | Number of rows: 25 ▾ Filter rows: Search this table
+ Options

name	price	speed
The kitchen Sink	10000.00	9999



PEBCAK
Internet

Our plans   Customer Login   Employee Login

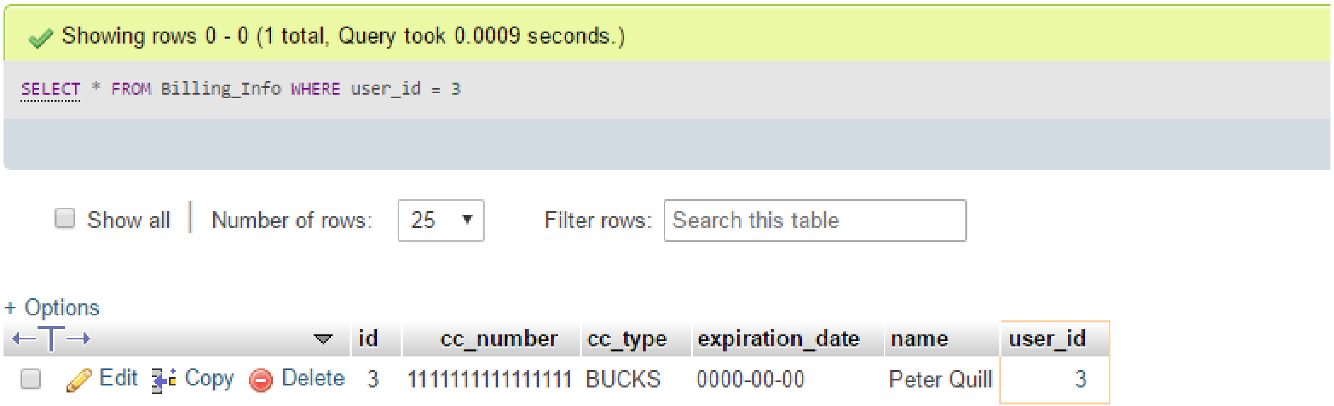
SUBSCRIBE

Plan Name
Speed
Price
Select billing info (drop down list)

Subscribe

Customer Portal
My account
Manage my cards
My plans

```
// Shown to the customer after they click on a plan to
// subscribe to it.
// Shows the details of the plan they selected, and
// retrieved all of
// that customer's billing options so they can select one.
// Requires no input
SELECT * FROM Billing_Info
WHERE user_id = $customerId
```



✓ Showing rows 0 - 0 (1 total, Query took 0.0009 seconds.)

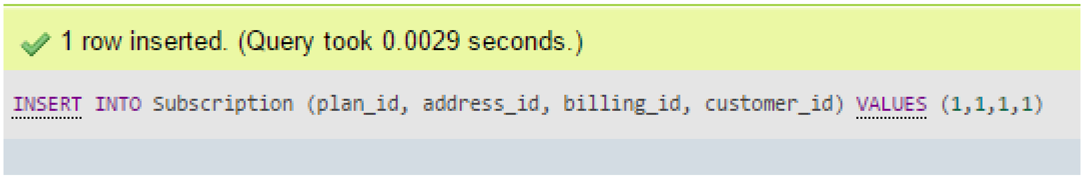
```
SELECT * FROM Billing_Info WHERE user_id = 3
```

□ Show all | Number of rows: 25 ▾   Filter rows: Search this table

+ Options

	id	cc_number	cc_type	expiration_date	name	user_id
□ Edit Copy Delete	3	1111111111111111	BUCKS	0000-00-00	Peter Quill	3

```
INSERT INTO Subscription (plan_id, address_id, billing_id,
customer_id)
VALUES ($planId, $addressId, $billingInfo, $customerId)
```



✓ 1 row inserted. (Query took 0.0029 seconds.)

```
INSERT INTO Subscription (plan_id, address_id, billing_id, customer_id) VALUES (1,1,1,1)
```