



Instituto Superior Técnico

## Projeto de Base de Dados, Parte 3

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Turno: Quinta-feira 12:30h – 14:00h

Esforço: 100h

Prof. Gabriel Pestana

# SQL

(a)

```
SELECT *
FROM posto o, espaco e
WHERE e.morada NOT IN (SELECT a.morada FROM aluga a) AND o.morada NOT IN (SELECT a.morada
FROM aluga a);
```

(b)

```
SELECT a.morada, COUNT(a.morada) AS Amount_of_reservations
FROM aluga a NATURAL JOIN edificio
GROUP BY morada
HAVING Amount_of_reservations >= (SELECT COUNT(x.numero)/2 FROM reserva x);
```

(c)

```
SELECT A.nif, COUNT(A.id) as count FROM
  (SELECT DISTINCT id, nif
   FROM user u
       NATURAL JOIN arrenda a
       NATURAL JOIN fiscaliza
       NATURAL JOIN fiscal)
AS A
GROUP BY nif
HAVING count=1;
```

(d)

```
SELECT DISTINCT e.morada, o.codigo, SUM(o.tarifa)*DATEDIFF(o.data_fim, o.data_inicio) AS maxpayed
FROM paga p
  NATURAL JOIN oferta o
  NATURAL JOIN espaco e
  NATURAL JOIN aluga
WHERE YEAR(p.data) = 2016
GROUP BY e.morada;
```

(e)

```
SELECT *
FROM espaco x
WHERE x.morada NOT IN
  (SELECT a.morada FROM aluga a WHERE a.numero NOT IN
    (SELECT e.numero FROM estado e WHERE e.estado NOT IN('Aceite')));
```

# Triggers e Stored Procedures

(Restrições de integridade)

```
DELIMITER $$
CREATE TRIGGER ins_dataOferta BEFORE INSERT ON oferta
FOR EACH ROW
BEGIN
    DECLARE error_message varchar(255);
    IF (EXISTS (select data_inicio from oferta
                where morada = NEW.morada AND codigo = NEW.codigo AND data_inicio =
NEW.data_inicio)) OR
        (EXISTS (select data_inicio from oferta
                where morada = NEW.morada AND codigo = NEW.codigo AND data_inicio =
NEW.data_inicio))
    THEN
        set @error_message = 'Ja existe uma oferta associada a este edificio com esta data';
        CALL error;
    END IF;
END; $$

CREATE TRIGGER ins_dataPagamento BEFORE INSERT ON paga
FOR EACH ROW
BEGIN
    DECLARE error_message varchar(255);

    IF TIMESTAMPDIFF(SECOND,(SELECT MAX(time_stamp) FROM estado WHERE numero =
NEW.numero), NEW.data) <0
    THEN
        SET @error_message = 'A data do pagamento tem de ser superior ao timestamp do ultimo
estado';
        CALL error;
    END IF;
END; $$

CREATE PROCEDURE insertBuilding(IN new_morada varchar(255))
BEGIN
    INSERT INTO edificio (morada) VALUES (new_morada);
END; $$

CREATE PROCEDURE insertSpace(IN new_morada varchar(255), IN new_codigo varchar(255))
BEGIN
    IF (EXISTS (SELECT morada FROM edificio where morada = new_morada)) AND (EXISTS(SELECT codigo
FROM alugavel where codigo = new_codigo))
    THEN
        INSERT INTO espaco (morada, codigo) VALUES (new_morada, new_codigo);

    ELSEIF (NOT EXISTS (SELECT morada FROM edificio where morada = new_morada))
    THEN
        INSERT INTO edificio (morada) VALUES (new_morada);
        INSERT INTO alugavel (morada, codigo, foto) VALUES (new_morada, new_codigo, 'no image');
        INSERT INTO espaco (morada, codigo) VALUES (new_morada, new_codigo);
```

```

ELSEIF (EXISTS (SELECT morada FROM edificio where morada = new_morada)) AND (NOT EXISTS (SELECT
codigo FROM alugavel where codigo = new_codigo))
THEN
    INSERT INTO alugavel (morada,codigo,foto) VALUES (new_morada, new_codigo,'no image');
    INSERT INTO espaco (morada,codigo) VALUES (new_morada, new_codigo);

ELSE
    CALL error;
END IF;
END; $$

```

```

CREATE PROCEDURE insertOffer(IN new_morada varchar(255), IN new_codigo varchar(255), IN
new_data_inicio date, IN new_data_fim date, IN new_tarifa integer)
BEGIN
    IF EXISTS (SELECT morada, codigo FROM edificio NATURAL JOIN alugavel WHERE morada =
new_morada AND codigo = new_codigo)
    THEN
        INSERT INTO oferta (morada, codigo, data_inicio, data_fim, tarifa) VALUES (new_morada,
new_codigo, new_data_inicio, new_data_fim, new_tarifa);

        ELSEIF NOT EXISTS (SELECT morada FROM edificio where morada = new_morada)
        THEN
            INSERT INTO edificio (morada) VALUES (new_morada);
            INSERT INTO alugavel (morada, codigo, foto) VALUES (new_morada, new_codigo, 'no image');
            INSERT INTO oferta (morada, codigo, data_inicio, data_fim, tarifa) VALUES (new_morada,
new_codigo, new_data_inicio, new_data_fim, new_tarifa);

        ELSEIF EXISTS (SELECT morada, codigo FROM edificio NATURAL JOIN alugavel WHERE morada
=new_morada AND codigo <> new_codigo)
        THEN
            INSERT INTO alugavel (morada, codigo, foto) VALUES (new_morada, new_codigo, 'no image');
            INSERT INTO oferta (morada, codigo, data_inicio, data_fim, tarifa) VALUES (new_morada,
new_codigo, new_data_inicio, new_data_fim, new_tarifa);
        ELSE
            CALL error;
        END IF;
    END; $$

```

```

CREATE PROCEDURE insertPost(IN new_morada varchar(255), IN new_codigo varchar(255), IN
new_codigo_espaco varchar(255))
BEGIN
    IF EXISTS (SELECT morada FROM edificio where new_morada = morada) AND
        EXISTS (SELECT codigo FROM alugavel where new_codigo_espaco = codigo) AND
        EXISTS (SELECT morada, codigo FROM espaco where new_codigo_espaco = codigo AND
new_morada = morada)
    THEN
        INSERT INTO posto (morada, codigo, codigo_espaco) VALUES (new_morada, new_codigo,
new_codigo_espaco);

        ELSEIF EXISTS (SELECT morada FROM edificio where new_morada = morada) AND
        EXISTS (SELECT codigo FROM alugavel where new_codigo_espaco = codigo) AND
        NOT EXISTS (SELECT morada, codigo FROM espaco where new_codigo_espaco = codigo
AND new_morada = morada)
    THEN
        INSERT INTO espaco (morada, codigo) VALUES (new_morada, new_codigo_espaco);
        INSERT INTO posto (morada, codigo, codigo_espaco) VALUES (new_morada, new_codigo,
new_codigo_espaco);

```

```

ELSEIF EXISTS (SELECT morada FROM edificio where new_morada = morada) AND
               NOT EXISTS (SELECT codigo FROM alugavel where new_codigo_espaco = codigo)
THEN
    INSERT INTO alugavel (morada,codigo,foto) VALUES (new_morada, new_codigo_espaco, 'no
image');
    INSERT INTO alugavel (morada,codigo,foto) VALUES (new_morada, new_codigo,'no image');
    INSERT INTO espaco (morada,codigo) VALUES (new_morada, new_codigo_espaco);
    INSERT INTO posto (morada,codigo,codigo_espaco) VALUES (new_morada, new_codigo,
new_codigo_espaco);

ELSEIF NOT EXISTS (SELECT morada FROM edificio where new_morada = morada)
THEN
    INSERT INTO edificio (morada) VALUES (new_morada);
    INSERT INTO alugavel (morada,codigo,foto) VALUES (new_morada, new_codigo_espaco,'no
image');
    INSERT INTO alugavel (morada,codigo,foto) VALUES (new_morada, new_codigo,'no image');
    INSERT INTO espaco (morada,codigo) VALUES (new_morada, new_codigo_espaco);
    INSERT INTO posto (morada,codigo,codigo_espaco) VALUES (new_morada, new_codigo,
new_codigo_espaco);
ELSE
    CALL error;
END IF;
END; $$

DELIMITER ;

```

# Aplicação

O código em anexo apenas representa uma parte da aplicação php. De que apenas foi anexado a este relatório as funções que lidam directamente com a base de dados.

## AdditionalFunctions.php

```
function testLogin($input_username,$input_nif,$input_phone,$db){
    // Verify login credentials
    $DBusrn="";
    $DBphone = -1;
    //echo "<p>Validating credentials of " . $input_username . "</p>\n";
    // Get name and phone number of the given user
    try {
        $sql = "SELECT * FROM user WHERE nif=$input_nif";
        $result = $db->query($sql);
        if (!$result) {
            echo("<p> ERROR:[Could not execute this query]:($sql)<p>");
            exit();
        }
        foreach($result as $i){
            $DBusrn = $i["nome"];
            $DBphone = $i["telefone"];
        }
        if ($DBusrn != $input_username OR empty($DBusrn) OR $DBphone != $input_phone OR $DBphone == -1) {
            echo "<p>Invalid credentials! Exit!</p>\n";
            echo("<form action='login.html'>
            <input type='submit' value='Try again' />
            </form>");
            return FALSE;
            //exit;
        }
        echo "<p>Valid Credentials! </p>\n";
        //Give the session the variables
        $_SESSION['username'] = $input_username;
        $_SESSION['nif'] = $input_nif;
        $global_nif = $input_nif;
        $_SESSION['phone_number'] = $input_phone;
        return TRUE;
        //<script type="text/javascript">
        //   window.location.href = "cool.html";
        //</script>
        //
    }
    catch(Exception $e) {
        echo "<p>Invalid credentials! Exit!</p>\n";
        echo("<form action='login.html'>
        <input type='submit' value='Try again' />
        </form>");
        $db = null;
        return FALSE;
        //exit;
    }
}

function showLoginInformation() {
    ?>
    <!-- Metodo POST que permite a o utilizador fazer log out -->
    <div>
    <form action="login.html">
```

```

right:10"/>
<input type="submit" value="Logout" style="position: fixed; bottom: 10;

</form>
</div>
<div>
<div id="ListSpaces" style="display: inline-block;">
<form action="ServerSide.php" method="post" accept-
charset="UTF-8">
<p><input type="submit" value="ListSpaces"
name="ListSpaces"></p>
</div>
<div id="ListBuildings" style="display: inline-block;">
<form action="ServerSide.php" method="post" accept-
charset="UTF-8">
<p><input type="submit" value="ListBuildings"
name="ListBuildings"></p>
</div>
<div id="ListPosts" style="display: inline-block;
<form action="ServerSide.php" method="post" accept-
charset="UTF-8">
<p><input type="submit" value="ListPosts" name="ListPosts"></p>
</div>
<div id="ListOffers" style="display: inline-block;">
<form action="ServerSide.php" method="post" accept-
charset="UTF-8">
<p><input type="submit" value="ListOffers"
name="ListOffers"></p>
</div>
<div id="ListReservations" style="display: inline-block;">
<form onSubmit="hide('ListReservations');">
action="ServerSide.php" method="post" accept-charset="UTF-8">
<p><input type="submit" value="ListReservations"
name="ListReservations"></p>
</div>
</div>

```

```

<?php
}

function listSpaces($connection) {
/*
morada varchar(50),
codigo integer,
*/
try{
    $sql = "SELECT * FROM espaco;";
    $result = $connection->query($sql);
    ?>
    <div id="postRemoval">
    <form action="ServerSide.php" method="post" accept-charset="UTF-8">
    <p>Introduza a morada do espaço: <input type="text" name="addrToDelete" style="display: flex; align-
items: center;"/></p>
    <p>Introduza o código do espaço: <input type="text" name="codeToDelete" style="display: flex; align-
items: center;"/></p>
    <p>
    <input type="submit" value="Delete Space" name="deleteSpace" style="display: inline;">
    <input type="submit" value="Insert Space" name="insertSpace" style="display: inline;">
    </p>
    </div>
    <?php
    //echo("<script>hide('ListSpaces');</script>");
    echo("<div id='SpaceTable'>");

```

```

echo("<table id='QueryTables' border=\"0\" cellspacing=\"5\">\n");
echo("<tr><td>--Address--</td><td>--Code--</td></tr>\n");
foreach($result as $row)
{
    echo("<tr>\n");
    echo("<td>{$row['morada']}</td>\n");
    echo("<td>{$row['codigo']}</td>\n");
    //echo("<td>{$row['balance']}</td>\n");
    //echo("<td><a href=\"balance.php?account_number={$row['account_number']}\">Change
balance</a></td>\n");
    echo("</tr>\n");
}
echo("</table>\n");
echo("</div>\n");
//onclick="this.parentNode.style.display = 'none'"
echo("<button style=\"display:inline;\" id=\"hide\"
onclick=\"hide('QueryTables');hide('hide');\">Hide</button>");
}
catch(PDOException $e){
    echo("<p>ERROR: {$e->getMessage()} </p>");
}
}

function listBuildings($connection) {
    /*
    morada varchar(50),
    */
    try {
        $sql = "SELECT * FROM edificio;";
        $result = $connection->query($sql);
        ?>
        <div id="buildingRemoval">
        <form action="ServerSide.php" method="post" accept-charset="UTF-8">
        <p>Introduza a morada do edificio: <input type="text" name="addrToDelete" style="display:flex;align-
items:center;"/></p>
        <p>
            <input type="submit" value="Delete Building" name="deleteBuilding" style="display:inline;">
            <input type="submit" value="Insert Building" name="insertBuilding" style="display:inline;">
        </p>
        </div>
        <?php
        echo("<div>");
        echo("<table id='QueryTables' border=\"0\" cellspacing=\"5\">\n");
        echo("<tr><td>--Address--</td><td>--Total Payment--</td></tr>\n");
            $payment = 0;
        foreach($result as $row)
        {
            echo("<tr>\n");
            echo("<td>{$row['morada']}</td>\n");
                $payment = totalPayment($connection,$row['morada']);
                foreach($payment as $p)
                {
                    $print = $p['MAXPAID'];
                    echo("<td>$print</td>\n");
                }
            //echo("<td>{$row['balance']}</td>\n");
            //echo("<td><a href=\"balance.php?account_number={$row['account_number']}\">Change
balance</a></td>\n");
            echo("</tr>\n");
        }
        echo("</table>\n");
        echo("</div>\n");
        //onclick="this.parentNode.style.display = 'none'"

```



```

        echo("<button style=\"display:inline;\" id=\"hide\"
onclick=\"hide('QueryTables');hide('hide');\">Hide</button>");
    }
    catch(PDOException $e) {
        echo("<p>ERROR: {$e->getMessage()} </p>");
    }
}

function listPosts($connection) {
    /*
    morada varchar(50),
    codigo integer,
    codigo_espaco integer,
    */
    try{
        $sql = "SELECT * FROM posto;";
        $result = $connection->query($sql);
        ?>
        <div id="postRemoval">
        <form action="ServerSide.php" method="post" accept-charset="UTF-8">
        <p>Introduza a morada do posto: <input type="text" name="addrToDelete" style="display:flex;align-
items:center;"/></p>
        <p>Introduza o código do posto: <input type="text" name="codeToDelete" style="display:flex;align-
items:center;"/></p>
        <p>Introduza o código do espaço: <input type="text" name="codeSpaceToDelete"
style="display:flex;align-items:center;"/></p>
        <p>
        <input type="submit" value="Delete Post" name="deletePost" style="display:inline;">
        <input type="submit" value="Insert Post" name="insertPost" style="display:inline;">
        </p>
        </div>
        <?php
        echo("<div>");
        echo("<table id='QueryTables'border=\"0\" cellspacing=\"5\">\n");
        echo("<tr><td>--Address--</td><td>--Code--</td><td>--Space Code--</td></tr>\n");
        foreach($result as $row)
        {
            echo("<tr>\n");
            echo("<td>{$row['morada']}</td>\n");
            echo("<td>{$row['codigo']}</td>\n");
            echo("<td>{$row['codigo_espaco']}</td>\n");
            //echo("<td><a href=\"balance.php?account_number={$row['account_number']}\">Change
balance</a></td>\n");
            echo("</tr>\n");
        }
        echo("</table>\n");
        echo("</div>\n");
        //onclick="this.parentNode.style.display = 'none'"

        echo("<button style=\"display:inline;\" id=\"hide\"
onclick=\"hide('QueryTables');hide('hide');\">Hide</button>");
    }
    catch(PDOException $e) {
        echo("<p>ERROR: {$e->getMessage()} </p>");
    }
}

function listReservations($connection){
    /*
    numero integer,
    */

```

```

try {
    $sql = "SELECT * FROM aluga;";
    $result = $connection->query($sql);
    echo("<div>");
    echo("<table id='QueryTables' border='0' cellspacing='5'>\n");
    echo("<tr><td>--Address--</td><td>--Code--</td><td>--Start Date--</td><td>--NIF--</td><td>--Reservation
Number--</td></tr>\n");
    foreach($result as $row)
    {
        echo("<tr>\n");
        echo("<td>{$row['morada']}</td>\n");
        echo("<td>{$row['codigo']}</td>\n");
        echo("<td>{$row['data_inicio']}</td>\n");
        echo("<td>{$row['nif']}</td>\n");
        echo("<td>{$row['numero']}</td>\n");
        //echo("<td>{$row['balance']}</td>\n");
        //echo("<td><a href='\"balance.php?account_number={\$row['account_number']}\">Change
balance</a></td>\n");
        echo("</tr>\n");
    }
    echo("</table>\n");
    echo("</div>\n");
    //onclick="this.parentNode.style.display = 'none'"

    echo("<button style='\"display:inline;\" id='\"hide\"'
onclick='\"hide('QueryTables');hide('hide');\">Hide</button>");
}
catch(PDOException $e) {
    throw $e;
}

}

function listOffers($connection) {
/*
morada varchar(50),
codigo integer,
data_inicio date,
data_fim date,
tarifa double,
*/
try {
    $sql = "SELECT * FROM oferta;";
    $result = $connection->query($sql);

    ?>
    <div id="offerListing">
    <form action="ServerSide.php" method="post" accept-charset="UTF-8">
    <p>Introduza a morada da oferta: <input type="text" name="addrToDelete" style="display:flex;align-
items:center;"/></p>
    <p>Introduza o código da oferta: <input type="text" name="codeToDelete" style="display:flex;align-
items:center;"/></p>
    <p>Introduza a data de início da oferta: <input type="text" name="startToDelete"
style="display:flex;align-items:center;"/></p>
    <p>Introduza a data de fim da oferta: <input type="text" name="endToDelete"
style="display:flex;align-items:center;"/></p>
    <p>Introduza a tarifa da oferta: <input type="text" name="priceToDelete" style="display:flex;align-
items:center;"/></p>
    <p>
    <input type="submit" value="Delete Offer" name="deleteOffer" style="display:inline;">
    <input type="submit" value="Insert Offer" name="insertOffer" style="display:inline;">
    <input type="submit" value="List Unreserved Offers" name="seeNonReservedOffers" style="display:inline;">
    <input type="submit" value="List non-paid Offers" name="seeNonPaidOffers" style="display:inline;">

```

```

</p>
</div>
<?php

echo("<div>");
echo("<table id='QueryTables'border=\"0\" cellspacing=\"5\">\n");
echo("<tr><td>--Address--</td><td>--Code--</td><td>--Start-Date--</td><td>--Final-Date--
</td><td>Tariff</td></tr>\n");
foreach($result as $row)
{
    echo("<tr>\n");
    echo("<td>{$row['morada']}</td>\n");
    echo("<td>{$row['codigo']}</td>\n");
    echo("<td>{$row['data_inicio']}</td>\n");
    echo("<td>{$row['data_fim']}</td>\n");
    echo("<td>{$row['tarifa']}</td>\n");
    //echo("<td><a href=\"balance.php?account_number={$row['account_number']}\">Change
balance</a></td>\n");
    echo("</tr>\n");
}
echo("</table>\n");
echo("</div>\n");
//onclick="this.parentNode.style.display = 'none'"

echo("<button style=\"display:inline;\" id=\"hide\"
onclick=\"hide('QueryTables');hide('hide');\">Hide</button>");
}
catch(PDOException $e) {
    // $connection->query("rollback;");
    throw $e;
}
}
//PHP a) edificio
function insertBuilding($connection,$addr) {
    try {
        testValidString($addr);
        $connection->query("start transaction;");
        // $sql = "INSERT INTO edificio (morada) VALUES ('$addr')";
        $sql = "CALL insertBuilding('$addr')";
        $connection->query($sql);
        $connection->query("commit");
        listBuildings($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}
//PHP a) edificio
function deleteBuilding($connection,$addr){
    try {
        testValidString($addr);
        $connection->query("start transaction;");
        $sql = "DELETE FROM edificio WHERE morada='$addr'";
        $connection->query($sql);
        $connection->query("commit");
        listBuildings($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

```

```

}

//PHP a) posto
function insertPost($connection,$addr,$code,$space_code) {
    try {
        testValidString($addr);
        testValidString($code);
        testValidString($space_code);
        $connection->query("start transaction;");
        $sql = "CALL insertPost('$addr', '$code', '$space_code')";
        // $sql = "INSERT INTO posto (morada, codigo, codigo_espaco) VALUES ('$addr', '$code', '$space_code')";
        $connection->query($sql);
        $connection->query("commit");
        listPosts($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

//PHP a) posto
function deletePost($connection,$addr,$code,$space_code) {
    try {
        testValidString($addr);
        testValidString($code);
        $connection->query("start transaction;");
        $sql = "DELETE FROM posto WHERE morada='$addr' AND codigo ='$code'";
        $connection->query($sql);
        $connection->query("commit");
        listPosts($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

//PHP a) espacio
function insertSpace($connection,$addr,$code){
    try {
        testValidString($addr);
        testValidString($code);
        $connection->query("start transaction;");
        $sql = "CALL insertSpace('$addr', '$code')";
        $connection->query($sql);
        $connection->query("commit");
        listSpaces($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

//PHP a) espacio
function deleteSpace($connection,$addr,$code){
    try {
        testValidString($addr);
        testValidString($code);
        $connection->query("start transaction;");
        $sql = "DELETE FROM espacio WHERE morada='$addr' AND codigo ='$code'";
        $connection->query($sql);
        $connection->query("commit");
        listSpaces($connection);
    }
}

```

```

    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

//PHP c)
function insertOffer($connection,$addr,$code,$start,$end,$price) {
    try {
        testValidString($addr);
        testValidString($code);
        testValidString($start);
        testValidString($end);
        testValidString($price);
        $connection->query("start transaction;");
        // $sql = "INSERT INTO oferta (morada, codigo, data_inicio, data_fim, tarifa) VALUES
        ('$addr', '$code', '$start', '$end', '$price')";
        $sql = "CALL insertOffer('$addr', '$code', '$start', '$end', '$price')";
        $connection->query($sql);
        $connection->query("commit");
        listOffers($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

function deleteOffer($connection,$addr,$code,$start,$end,$price) {
    try {
        testValidString($addr);
        testValidString($code);
        testValidString($start);
        testValidString($end);
        testValidString($price);
        $connection->query("start transaction;");
        $sql = "DELETE FROM oferta WHERE morada='$addr' AND codigo='$code' AND data_inicio='$start' AND
        data_fim='$end' AND tarifa=$price";
        $connection->query($sql);
        $connection->query("commit");
        listOffers($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

//PHP d)

function createReservation($connection,$numero,$date,$addr,$code,$nif){
    try {
        $connection->query("start transaction;");
        $timestamp = date('Y-m-d G:i:s');
        $sql = "INSERT INTO reserva VALUES ('$numero')";
        $sql1 = "INSERT INTO aluga VALUES ('$addr', '$code', '$date', '$nif', '$numero')";
        $sql2 = "INSERT INTO estado VALUES ('$numero', '$timestamp', 'Aceite')";
        $connection->exec($sql);
        $connection->exec($sql1);
        $connection->exec($sql2);
        $connection->query("commit");
        seeNonReservedOffers($connection);
    }
}

```

```

        catch(PDOException $e) {
            $connection->query("rollback;");
            throw $e;
        }
    }

function insertPayment($connection,$numero,$method) {
    try {
        testValidString($numero);
        testValidString($method);
        $connection->query("start transaction;");
        $timestamp = date('Y-m-d G:i:s');
        $sql2 = "INSERT INTO paga VALUES ('$numero', '$timestamp', '$method')";
        $sql3 = "INSERT INTO estado VALUES ('$numero', '$timestamp', 'Paga')";
        $connection->exec($sql2);
        $connection->exec($sql3);
        $connection->query("commit");
        seeNonReservedOffers($connection);
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

//PHP e)
function totalPayment($connection,$addr) {
    try {
        $connection->query("start transaction;");
        $sql = "SELECT SUM(o.tarifa)*DATEDIFF(o.data_fim, o.data_inicio) as MAXPAID
                FROM paga p
                NATURAL JOIN oferta o
                NATURAL JOIN espacio e
                NATURAL JOIN aluga a
                WHERE morada = '$addr' GROUP BY e.morada;";
        $result = $connection->query($sql);
        $connection->query("commit");
        return $result;
    }
    catch(PDOException $e) {
        $connection->query("rollback;");
        throw $e;
        return;
    }
    catch(Exception $e) {
        $connection->query("rollback;");
        throw $e;
    }
}

function seeNonReservedOffers($connection) {
    try {
        /* morada varchar(255) not null,
        codigo varchar(255) not null,
        data_inicio date not null,
        data_fim date not null,
        tarifa numeric(19,4) not null,*/

        $connection->query("start transaction;");
        $sql = "SELECT * FROM oferta o WHERE o.morada NOT IN(SELECT morada FROM aluga)";
        $result = $connection->query($sql);
        $connection->query("commit");
    }
}

```

```

        echo("<script>hide('QueryTables');</script>");
        //echo("<p>HERE'S THE FUCKING NIF '$_SESSION['nif']"</p>");

//insertPayment($connection,$_POST['numberToInsert'],$_POST['dateToInsert'],$_POST['methodToInsert'],$_SESSI
ON['nif'],$_POST['addrToInsert'],$_POST['codeToInsert']);
?>
        <div id="nonReserved">
        <form action="ServerSide.php" method="post" accept-charset="UTF-8">
        <p>Introduza a morada da oferta: <input type="text" name="addrToInsert" style="display:flex;align-
items:center;"></p>
        <p>Introduza o código da oferta: <input type="text" name="codeToInsert" style="display:flex;align-
items:center;"></p>
        <p>Introduza a data de início da oferta: <input type="text" name="dateToInsert"
style="display:flex;align-items:center;"></p>
        <p>Introduza o seu nif: <input type="text" name="nifToInsert" style="display:flex;align-
items:center;"></p>
        <p>Introduza o numero da reserva: <input type="text" name="numberToInsert"
style="display:flex;align-items:center;"></p>

        <!--<p>Introduza a data de fim da oferta: <input type="text" name="endToDelete"
style="display:flex;align-items:center;"></p>
        <p>Introduza a tarifa da oferta: <input type="text" name="priceToDelete" style="display:flex;align-
items:center;"></p>

        function createReservation($connection,$numero,$date,$addr,$code,$nif) {
        -->
        <p>
        <input type="submit" value="create reservation" name="createReservation" style="display:inline;">
        </p>
        </div>
        <?php

        echo("<div>");
        echo("<table id='QueryTables'border='\"0\"' cellpadding='\"5\"'>\n");
        echo("<tr><td>--Address--</td><td>--Code--</td><td>--Start-Date--</td><td>--Final-Date--
</td><td>Tariff</td></tr>\n");
        foreach($result as $row)
        {
                echo("<tr>\n");
                echo("<td>{$row['morada']}</td>\n");
                echo("<td>{$row['codigo']}</td>\n");
                echo("<td>{$row['data_inicio']}</td>\n");
                echo("<td>{$row['data_fim']}</td>\n");
                echo("<td>{$row['tarifa']}</td>\n");
                //echo("<td><a href='\"balance.php?account_number={$_row['account_number']}\">Change
balance</a></td>\n");
                echo("</tr>\n");
        }
        echo("</table>\n");
        echo("</div>\n");
        //onclick="this.parentNode.style.display = 'none'"

        echo("<button style='\"display:inline;\" id='\"hide\"'
onclick='\"hide('QueryTables');hide('hide');\">Hide</button>");

    }
    catch(PDOException $e) {
            $connection->query("rollback;");
            throw $e;
    }
}

```

```

function seeNonPaidOffers($connection) {
    try {
        $connection->query("start transaction;");
        $sql = "SELECT * FROM estado o WHERE o.numero NOT IN(SELECT numero FROM estado NATURAL JOIN
paga);";
        $result = $connection->query($sql);
        $connection->query("commit");
        echo("<script>hide('QueryTables');</script>");
        //echo("<p>HERE'S THE FUCKING NIF '$_SESSION['nif']"</p>");

//insertPayment($connection,$_POST['numberToInsert'],$_POST['dateToInsert'],$_POST['methodToInsert'],$_SESSI
ON['nif'],$_POST['addrToInsert'],$_POST['codeToInsert']);
?>
<div id="ReservedPay">
<form action="ServerSide.php" method="post" accept-charset="UTF-8">
<p>Introduza o numero da oferta a pagar: <input type="text" name="numberToInsert" style="display:flex;align-
items:center;" /></p>
<p>Introduza o metodo de pagamento: <input type="text" name="methodToInsert" style="display:flex;align-
items:center;" /></p>

<!--<p>Introduza a data de fim da oferta: <input type="text" name="endToDelete"
style="display:flex;align-items:center;" /></p>
<p>Introduza a tarifa da oferta: <input type="text" name="priceToDelete" style="display:flex;align-
items:center;" /></p>

function insertPayment($connection,$numero,$method) {
-->
<p>
<input type="submit" value="PAY" name="insertPayment" style="display:inline;">
</p>
</div>
<?php
echo("<table id='QueryTables' border='\"0\"' cellspacing='\"5\"'>\n");
echo("<tr><td>--Number--</td><td>--TimeStamp--</td><td>--State--</td></tr>\n");
foreach($result as $row)
{
    echo("<tr>\n");
    echo("<td>{$row['numero']}</td>\n");
    echo("<td>{$row['time_stamp']}</td>\n");
    echo("<td>{$row['estado']}</td>\n");
    //echo("<td><a href='\"balance.php?account_number={\$row['account_number']}\"'>Change
balance</a></td>\n");
    echo("<tr>\n");
}
echo("</table>\n");
echo("</div>\n");
//onclick="this.parentNode.style.display='none'"

echo("<button style='\"display:inline;\" id='\"hide\"'
onclick='\"hide('QueryTables');hide('hide');\"'>Hide</button>");

}
catch(PDOException $e) {
    $connection->query("rollback;");
    throw $e;
}
}
?>

```



