APPENDIX 2. PHP SOURCE CODE FOR THE CONSIDERED EXERCISES

A2.1 File action.php

```php
<?php
# process request to create contract
if (isset($_POST["create_contract"])) {
    $supplier_id = $_POST["supplier_id"];
    $contract_note = $_POST["contract_note"];

    # use the stored procedure created earlier
    $sql = "CALL sp_contract_ops('i', 0, '', {$supplier_id}, '{$contract_note}')";
    mysqli_query($conn, $sql);

    header("location: index.php");
}

# process request to delete contract
if (isset($_POST["delete_contract"])) {
    $contract_number = $_POST["contract_number"];

    $sql = "CALL sp_contract_ops('d', {$contract_number}, '', 0, '')";
    mysqli_query($conn, $sql);

    header("location: index.php");
}

# process request to update contract
```

```php
if (isset($_POST["update_contract"])) {

    $contract_number = $_POST["contract_number"];

    $supplier_id = $_POST["supplier_id"];

    $contract_note = $_POST["contract_note"];


    $sql = "CALL sp_contract_ops('u', {$contract_number},
CURRENT_TIMESTAMP(), {$supplier_id}, '{$contract_note}')";
    mysqli_query($conn, $sql);


    header("location: index.php");
}


# process request to insert new record into session array of delivered
products
if (isset($_POST["add_product"])) {

    $supplied_product = $_POST["supplied_product"];

    $supplied_amount = $_POST["supplied_amount"];

    $supplied_cost = $_POST["supplied_cost"];


    if (!empty($supplied_product) && !empty($supplied_amount) &&
!empty($supplied_cost)) {

        if (is_numeric($supplied_amount) &&
is_numeric($supplied_cost)) {

            if ($supplied_amount > 0 && $supplied_cost > 0) {


    $_SESSION["supplied_products"][$supplied_product] =
array("amount" => $supplied_amount,

                        "cost" => $supplied_cost);

            }

        }
```

```php
    }

    header("location: index.php");
}


# process request to remove a record from the session array
if (isset($_GET["supplied"]) && $_GET["supplied"] == "remove") {
    $supplied_product = $_GET["product"];
    unset($_SESSION["supplied_products"][$supplied_product]);

    header("location: index.php");
}


# process request to store delivered products into the database
if (isset($_POST["save_products"])) {
    $contract_number = $_POST["contract_number"];

    # begin transaction
    mysqli_query($conn, "SET AUTOCOMMIT = 0");
    mysqli_query($conn, "START TRANSACTION");

    $failed = false;

    foreach ($_SESSION["supplied_products"] as $key => $value) {
        $amount = $value["amount"];
        $cost = $value["cost"];

        # keep result of each query inside the transaction
```

```php
            $result = mysqli_query($conn, "INSERT INTO supplied
(contract_number,

                supplied_product, supplied_amount, supplied_cost)
VALUES (

                {$contract_number}, '{$key}', {$amount}, {$cost})");


            if (!$result) {

                $failed = true;


                # rollback the transaction if any query is failed

                mysqli_query($conn, "ROLLBACK");

                break;

            }

        }


        if (!$failed) {

            # commit the transaction if there are no failed queries

            mysqli_query($conn, "COMMIT");

        }


        # restore autocommit property

        mysqli_query($conn, "SET AUTOCOMMIT = 1");


        # clear session array after products are stored into the database

        $_SESSION["supplied_products"] = NULL;


        header("location: index.php");

}
```

```php
# process request to export report into the Excel document
if (isset($_GET["action"]) && $_GET["action"] == "export") {
      $filename = "report_contracts_" . date('Ymd') . ".xls";


      header("Content-Disposition: attachment; filename=\"$filename\"");
      header("Content-Type: application/vnd.ms-excel");


      $flag = false;
      $result = mysqli_query($conn, "CALL sp_contract_total('2018-01-01',
CURRENT_TIMESTAMP())");


      while ($row = mysqli_fetch_assoc($result)) {
            if (!$flag) {
                  echo implode("\t", array_keys($row)) . "\r\n";
                  $flag = true;
      }


        array_walk($row, __NAMESPACE__ . '\cleanData');
        echo implode("\t", array_values($row)) . "\r\n";
      }


      exit;
}


function cleanData(&$str) {
   $str = preg_replace("/\t/", "\\t", $str);
   $str = preg_replace("/\r?\n/", "\\n", $str);


   if (strstr($str, '"')) {
```

```php
        $str = "" . str_replace("", "'", $str) . "";
    }
}
?>
```

A2.2 File connect.php

```php
<?php
function db_conn() {
        $server = "localhost";
        $user = $_SESSION["user"];
        $pass = $_SESSION["pass"];
        $db = "supply";

        $conn = @mysqli_connect($server, $user, $pass, $db);

        if (!$conn) {
                session_unset();
                session_destroy();

                die("Connection failed: " . mysqli_connect_error());
        }

        return $conn;
}
?>
```

A2.3 File index.php

```php
<?php
session_start();

require_once("connect.php");

$conn = NULL;

# check for a user session
if (isset($_SESSION["user"])) {
    $conn = db_conn();
    include("action.php");
} else {
    # redired to login page if the user is not set
    header("location: login.php");
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Supply</title>
</head>
<body>
    <p>
        <b>User:</b> <i><?= $_SESSION["user"] ?></i> | <a
href="logout.php">Logout</a>
    </p>
    <?php
    # display content depending on the user type
```

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```php
        if ($_SESSION["user"] == "manager") {
                include("manager.php");
        }


        if ($_SESSION["user"] == "storekeeper") {
                include("storekeeper.php");
        }
        ?>
</body>
</html>
<?php
mysqli_close($conn);
?>
```

A2.4 File login.php

```php
<?php
session_start();

# process login form
if (isset($_POST["login"])) {
        session_unset();

        # set user session variables
        $_SESSION["user"] = $_POST["user"];
        $_SESSION["pass"] = $_POST["pass"];

        header("location: index.php");
} else {
        # redirect to a home page if user is already signed in
        if (isset($_SESSION["user"])) {
                header("location: index.php");
        }
}
?>
<!DOCTYPE html>
<html>
<head>
        <title>Login</title>
</head>
<body>
        <h3>Supply Application Login</h3>
        <form method="post" action="login.php">
```

```html
            <p>
                <b>User name</b>
            </p>
            <p>
                <input type="text" name="user" required />
            </p>
            <p>
                <b>Password</b>
            </p>
            <p>
                <input type="password" name="pass" required />
            </p>
            <p>
                <input type="submit" name="login" value="Login" />
            </p>
        </form>
    </body>
</html>
```

A2.5 File logout.php

```php
<?php
session_start();

# remove session variables and destroy a session
session_unset();
session_destroy();

header("location: login.php");
?>
```

A2.6 File manager.php

```php
<?php
# check for a user session
if (!isset($_SESSION["user"])) {
        header("location: login.php");
}
?>


<h3>Contracts</h3>
<p>
        <?php
        # if the page is in record's create/update or delete mode (action
parameter is set) - show 'back' link
        if (isset($_GET["action"]) && ($_GET["action"] == "create" ||
$_GET["action"] == "update"
                || $_GET["action"] == "delete")) {
        ?>
                <a href="index.php">Back</a>
        <?php
        # otherwise - show 'new record' link
        } else {
        ?>
                <a href="index.php?action=create">New contract</a>
                <a href="index.php?action=export">Export data</a>
        <?php
        }
        ?>
</p>
```

```php
<?php
# check for action parameter
# show create/update or delete form if it is set
if (isset($_GET["action"]) && ($_GET["action"] == "create" ||
$_GET["action"] == "update"
    || $_GET["action"] == "delete")) {
?>
    <form method="post" action="index.php">
        <input type="hidden" value="<?= $_GET["id"] ?>"
name="contract_number" />
        <?php
        # if the current mode is create/update
        # show corresponding form with the required fields and buttons
        if ($_GET["action"] == "create" || $_GET["action"] == "update") {
        ?>
        <p>
            <b>Supplier</b>
        </p>
        <p>
            <select name="supplier_id">
            <?php
            # retrieve suppliers ids/info to display select control
            $sql = "SELECT * FROM supplier_info";
            $result = mysqli_query($conn, $sql);

            while ($row = mysqli_fetch_assoc($result)) {
                ?><option value="<?= $row["supplier_id"] ?>"><?=
$row["Info"] ?></option><?php
            }
            ?>
```

```php
            </select>
        </p>
        <p>
            <b>Note</b>
        </p>
        <p>
            <?php
            # retrieve and display contract note of the updated
contract
            if (isset($_GET["action"]) && $_GET["action"] == "update")
{
                $contract_number = $_GET["id"];

                $sql = "SELECT contract_note FROM contract
WHERE contract_number = {$contract_number}";
                $result = mysqli_query($conn, $sql);
                $row = mysqli_fetch_assoc($result);
            }
            ?>
            <textarea name="contract_note" rows="5" cols="50"><?=
$row["contract_note"] ?></textarea>
        </p>
        <p>
            <?php
            # set proper names for create/update buttons
            if (isset($_GET["action"]) && $_GET["action"] == "create")
{
            ?>
                <input type="submit" name="create_contract"
value="Save" />
```

```php
                <?php
                } else if (isset($_GET["action"]) && $_GET["action"] ==
"update") {
                ?>
                    <input type="submit" name="update_contract"
value="Save" />
                <?php
                }
                ?>
        </p>
        <?php
        # if the current mode is delete
        # display the corresponding question and button
        } else if ($_GET["action"] == "delete") {
        ?>
                <b>Delete the contract #<?= $_GET["id"] ?>?</b>
                <p>
                    <input type="submit" name="delete_contract"
value="Continue" />
                </p>
        <?php
        }
        ?>
    </form>
<?php
} else {
?>
    <table border="1">
        <tr>
            <th>Contract number</th>
```

```php
            <th>Contract date</th>
            <th>Supplier</th>
            <th>Note</th>
            <th>Action</th>
        </tr>
    <?php
    # retrieve and display data about contracts
    $sql = "SELECT contract_supplier.*,
        (SELECT contract_note FROM contract WHERE
contract_number = contract_supplier.contract_number) AS `note`
        FROM contract_supplier";
    $result = mysqli_query($conn, $sql);


    while ($row = mysqli_fetch_assoc($result)) {
        ?>
        <tr>
            <td><a href="index.php?action=info&id=<?=
$row["contract_number"] ?>"><?= $row["contract_number"] ?></a></td>
            <td><?= $row["contract_date"] ?></td>
            <td><?= $row["Supplier"] ?></td>
            <td><?= $row["note"] ?></td>
            <td>
                <a href="index.php?action=update&id=<?=
$row["contract_number"] ?>">Update</a>
                <a href="index.php?action=delete&id=<?=
$row["contract_number"] ?>">Delete</a>
            </td>
        </tr>
        <?php
    }
```

```php
        ?>
        </table>
<?php
}


# if the action mode is info
# display data about supplied products for a selected contract
if (isset($_GET["action"]) && $_GET["action"] == "info") {
        $contract_number = $_GET["id"];
?>
        <h3>Supplied products by contract #<?= $contract_number ?></h3>
        <p>
        <a href="index.php">Hide</a>
        </p>
        <?php
        # retrieve data about selected products
        $sql = "SELECT supplied_product, supplied_amount, supplied_cost
                FROM supplied
                WHERE contract_number = {$contract_number}";
        $result = mysqli_query($conn, $sql);

        # check the size of a result set
        if (mysqli_num_rows($result) > 0) {
                ?>
                <table border="1">
                        <tr>
                                <th>Product</th>
                                <th>Amount</th>
                                <th>Cost</th>
```

```php
            </tr>
        <?php
        # display products if the contract is not empty
        while ($row = mysqli_fetch_assoc($result)) {
            ?>
            <tr>
                <td><?= $row["supplied_product"] ?></td>
                <td><?= $row["supplied_amount"] ?></td>
                <td><?= $row["supplied_cost"] ?></td>
            </tr>
            <?php
        }
    } else {
        # if the result set is empty print the following message
        echo "Contract is empty";
    }
    ?>
    </table>
<?php
}
?>
```

A2.7 File storekeeper.php

```php
<?php
# check for a user session
if (!isset($_SESSION["user"])) {
        header("location: login.php");
}


# initialize array of delivered but not stored products
# such array is implemented as the session variable
if (!isset($_SESSION["supplied_products"])) {
        $_SESSION["supplied_products"] = array();
}
?>
```

```html
<h3>Supplied products</h3>
```

```php
<?php
# check for awaiting deliveries (is there any empty contracts)
$sql = "SELECT * FROM contract_supplier
        WHERE contract_number NOT IN (SELECT contract_number FROM supplied)";
$result = mysqli_query($conn, $sql);


# if awaiting deliveries exist
# display a corresponding form
if (mysqli_num_rows($result) > 0) {
        # chech session array of delivered but not stored products
        # if there are any products - display the form used to store supplied products
```

```php
if (sizeof($_SESSION["supplied_products"]) > 0) {
?>
        <form method="post" action="index.php">
                <p>
                        <b>by contract</b>
                        <select name="contract_number">
                        <?php
                        # display the combo box with awaiting orders
                        while ($row = mysqli_fetch_assoc($result)) {
                                ?><option value="<?=
$row["contract_number"] ?>">
                                        <?= $row["contract_number"] . " - " .
$row["Supplier"] .
                                        " (" . $row["contract_date"] . ")"
?></option><?php
                        }
                        ?>
                        </select>
                </p>
                <table border="1">
                        <tr>
                                <th>Product</th>
                                <th>Amount</th>
                                <th>Cost</th>
                                <th>Action</th>
                        </tr>
                <?php
                # display the session array of delivered products
                foreach ($_SESSION["supplied_products"] as $key =>
$value) {
```

```php
                    ?>
                        <tr>
                            <td><?= $key ?></td>
                            <td><?= $value["amount"] ?></td>
                            <td><?= $value["cost"] ?></td>
                            <td><a
href="index.php?supplied=remove&product=<?= $key
?>">Remove</a></td>
                        </tr>
                    <?php
                    }
                    ?>
                </table>
                <p>
                    <input type="submit" name="save_products"
value="Store products" />
                </p>
        </form>
    <?php
    } else {
        echo "Add supplied products";
    }
    ?>
    <p>
        <b>New product</b>
    </p>
    <form method="post" action="index.php">
        <table border="1">
            <tr>
                <th>Product</th>
```

```
                <th>Amount</th>
                <th>Cost</th>
            </tr>
            <tr>
                <td>
                    <input type="text" name="supplied_product" required />
                </td>
                <td>
                    <input type="number" name="supplied_amount" min="0.01" step="0.01" value="0.01" required />
                </td>
                <td>
                    <input type="number" name="supplied_cost" min="0.01" step="0.01" value="0.01" required />
                </td>
            </tr>
        </table>
        <p>
            <input type="submit" name="add_product" value="Add product">
        </p>
    </form>
<?php
} else {
    echo "There are no awaiting deliveries";
}
?>
```