

Task 1 and 2 ,week 2

Task 1, build a web page to control the robot's movement direction and link it to the database

Code html

```
<!DOCTYPE html>
<html lang="ar">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>تحكم</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <div class="control-buttons">
    <button id="up">↑ فوق</button>
    <button id="left">← يسار</button>
    <button id="stop">⏹ توقف</button>
    <button id="right">→ يمين</button>
    <button id="down">↓ تحت</button>
  </div>
  <div id="last-value">آخر قيمة: <span id="last-value-text">لا يوجد بيانات</span></div>

  <script src="script.js"></script>
</body>
</html>
```

Code css

```
body {
  display: flex;
  flex-direction: column;
  justify-content: center;
  align-items: center;
  height: 100vh;
  margin: 0;
  background-color: #f0f0f0;
  font-family: Arial, sans-serif;
}

.control-buttons {
  display: grid;
  grid-template-columns: repeat(3, 100px);
  grid-template-rows: repeat(3, 100px);
  gap: 10px;
  justify-items: center;
  align-items: center;
}

button {
  width: 100px;
  height: 100px;
  font-size: 20px;
  cursor: pointer;
}

#up {
  grid-column: 2;
  grid-row: 1;
}
```

```

}

#left {
    grid-column: 1;
    grid-row: 2;
}

#stop {
    grid-column: 2;
    grid-row: 2;
}

#right {
    grid-column: 3;
    grid-row: 2;
}

#down {
    grid-column: 2;
    grid-row: 3;
}

#last-value {
    margin-top: 20px;
    font-size: 24px;
}

```

Code JavaScript

```

function sendRequest(direction) {
    var xhr = new XMLHttpRequest();
    xhr.open("POST", "handle_request.php", true);
    xhr.setRequestHeader("Content-Type", "application/x-www-form-urlencoded");
    xhr.onreadystatechange = function() {
        if (xhr.readyState === 4 && xhr.status === 200) {
            alert(xhr.responseText);
            updateLastValue();
        }
    };
    xhr.send("direction=" + direction);
}

function updateLastValue() {
    var xhr = new XMLHttpRequest();
    xhr.open("GET", "get_last_value.php", true);
    xhr.onreadystatechange = function() {
        if (xhr.readyState === 4 && xhr.status === 200) {
            document.getElementById("last-value-text").innerText = xhr.responseText;
        }
    };
    xhr.send();
}

document.getElementById("up").addEventListener("click", function() {
    sendRequest("up");
});

document.getElementById("left").addEventListener("click", function() {
    sendRequest("left");
});

document.getElementById("stop").addEventListener("click", function() {
    sendRequest("stop");
});

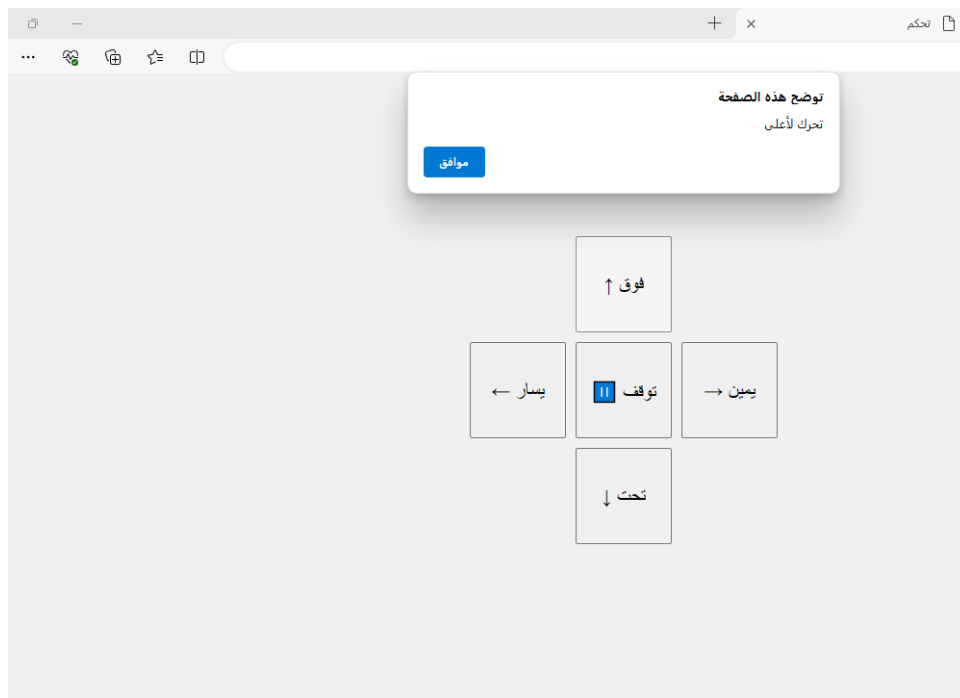
```

```
});

document.getElementById("right").addEventListener("click", function() {
    sendRequest("right");
});

document.getElementById("down").addEventListener("click", function() {
    sendRequest("down");
});
```

// تحديث القيمة الأخيرة عند تحميل الصفحة لأول مرة
`updateLastValue();`



To connect this website to a database using XAMPP, first download xampp and run MySQL and Apache, then open phpMyAdmin, create the database and a table consisting of an **id** column and a **direction** column. **Then, to link to the site, prepare files in the same project folder that include cod:**

database connection :

```
<?php
$servername = "localhost";
$username = "root"; // أو اسم المستخدم الخاص بك في MySQL
$password = ""; // عادةً تكون فارغة في MySQL كلمة مرور
$dbname = "control_db";

// إنشاء الاتصال
$conn = new mysqli($servername, $username, $password, $dbname);

// التحقق من الاتصال
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
?>
```

handle control requests:

```
<?php
include 'db.php';
```

```

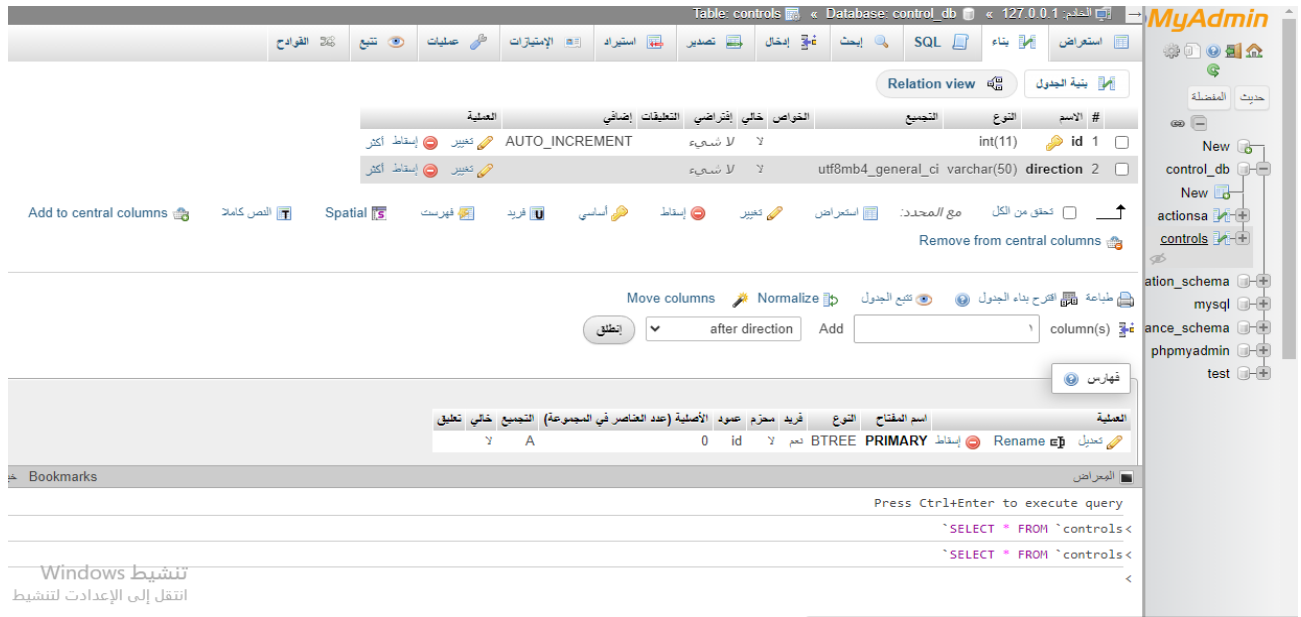
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $direction = $_POST["direction"];

    $sql = "INSERT INTO controls (direction) VALUES ('$direction')";

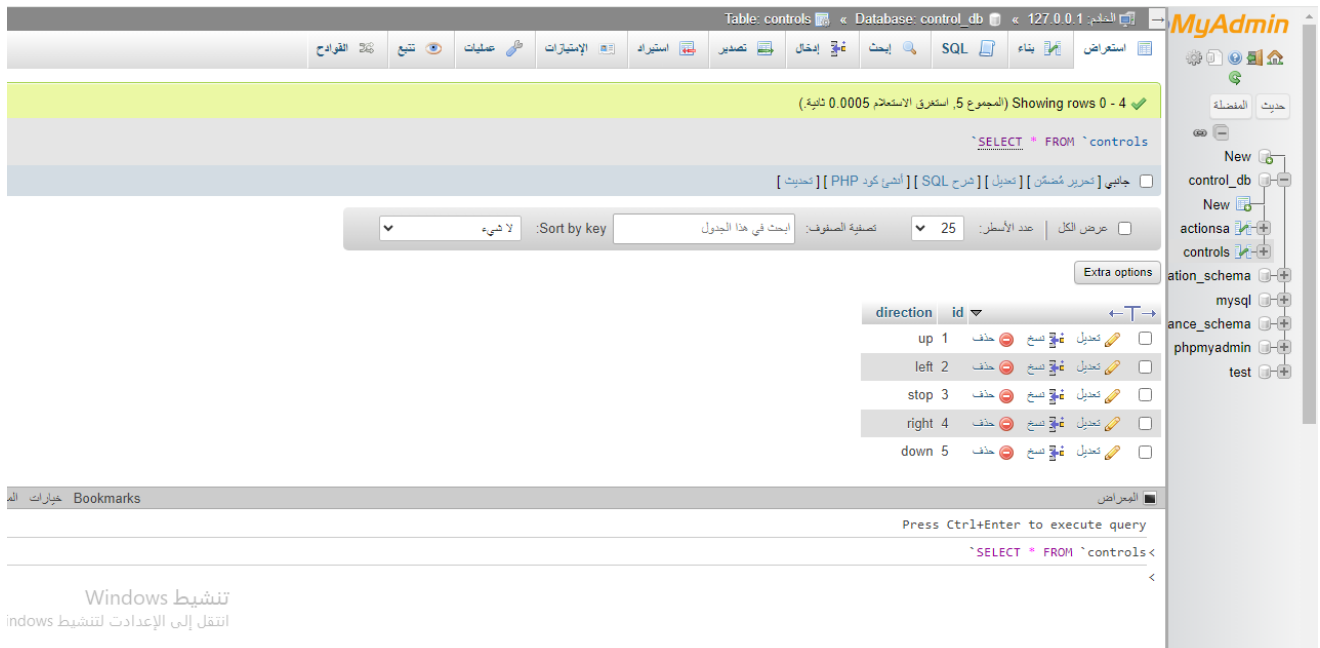
    if ($conn->query($sql) === TRUE) {
        echo "New record created successfully";
    } else {
        echo "Error: " . $sql . "<br>" . $conn->error;
    }

    $conn->close();
}
?>

```



Data form the buttons will be sent to the database when pressed:



Task 2, web page that displays the latest value in the database, First, some modifications to the html, css, and javascript code and preparing a file that includes the code to display the last value from the database

```

<?php
include 'db.php';

```

```

$sql = "SELECT direction FROM controls ORDER BY id DESC LIMIT 1";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    $row = $result->fetch_assoc();
    echo $row["direction"];
} else {
    echo "No data";
}

$conn->close();
?>

```

localhost / 127.0.0.1 / control_db | Gmail - (يكون موضوع) |

localhost/web/index.html

يعرض موقع localhost

New record created successfully

حسناً

فوق ↑

يسار ←

توقف ||

يمين →

تحت ↓

آخر قيمة: up

localhost/phpmyadmin/index.php?route=/sql&db=control_db&table=controls&pos=0

Table: controls Database: control_db 127.0.0.1

استعراض | بناء | SQL | بحث | إدخال | تصدير | استيراد | الإمتيازات | عمليات | تتبع | القوائم

Extra options

direction	id	تعديل	تسجيل	حذف
up	1			
left	2			
stop	3			
right	4			
down	5			
up	6			
stop	7			
stop	8			
down	9			
stop	10			
down	11			
up	12			
left	13			
up	14			

تنشيط ws | انتقل إلى الإء

عرض الكل | عدد الأسطر: 25 | تصفية الصفوف: | البحث في هذا الجدول | Sort by key: لا شيء

المعارض