# Java Spring Boot Backend Code API Description and Sample Postman Requests and Responses

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# AUTHENTICATION CONTROLLER LAYER METHODS TEST RESULT

# **User Registration**

```
@PostMapping("/register")
public ResponseEntity<UserDTO> registerUser(@RequestBody
RegisterRequest registerRequest) {
   try {
       UserDTO createdUser = userService.registerUser(
               registerRequest.getName(),
               registerRequest.getSurname(),
               registerRequest.getEmail(),
               registerRequest.getUsername(),
               registerRequest.getPassword()
       );
       return
ResponseEntity.status(HttpStatus.CREATED).body(createdUser);
   } catch (RuntimeException e) {
ResponseEntity.status(HttpStatus.BAD REQUEST).body(null);
   }
}
```

#### **Java Spring Boot Code**

URL: <a href="http://localhost:8080/api/auth/register">http://localhost:8080/api/auth/register</a>

```
Method Type: POST
```

```
Sample JSON File 1:
{
    "name": "Ali",
    "surname": "Veli",

"email": "ali.veli@example.com",
    "username": "aliveli",
    "password": "sifre123"
    }

Sample JSON File 2:
    {
    "username": "johndoe",

"email": "john.doe@example.com",
    "password": "password123",
    "name": "John",
```

```
"surname": "Doe"
}
```

#### DB Screen after both files are sent:



# **LogIn Operation**

```
@PostMapping("/login")
public ResponseEntity<LoginResponse> loginUser(@RequestBody
LoginUserDto loginUserDto) {
    try {
        String token = authService.loginUser(loginUserDto.getEmail(),
loginUserDto.getPassword());
        LoginResponse loginResponse = new LoginResponse("Bearer " +
token, jwtUtil.getEXPIRATION_TIME());
        return ResponseEntity.ok(loginResponse);
    } catch (Exception e) {
        return
ResponseEntity.status(HttpStatus.UNAUTHORIZED).body(null);
    }
}
```

#### **Java Spring Boot Code**

URL: http://localhost:8080/api/auth/login

```
Method Type: POST
```

{

eyJhbGciOiJlUzl1NiJ9.eyJzdWliOiJhbGl2ZWxpliwiaWF0ljoxNzQzNzQ0NzU4LCJleHAi OjE3NDM3ODA3NTh9.-feFcTg7RoXq22j0aJKnnT-lfKbJU-qezwXPBBYJeN0",

```
"expiresIn": 36000000
}
```

# **USER CONTROLLER LAYER METHODS TEST RESULT**

# **Delete User**

```
@DeleteMapping("/delete/{username}")
public ResponseEntity<String> deleteUser(@PathVariable String
username) {
   try {
      String result = userService.deleteUser(username);
      return ResponseEntity.ok(result);
   } catch (RuntimeException e) {
      return ResponseEntity.status(HttpStatus.NOT_FOUND).body("Usernot found");
   }
}
```

#### **Java Spring Boot Code**

URL: <a href="http://localhost:8080/api/users/delete/4">http://localhost:8080/api/users/delete/aliveli</a>) (Example: <a href="http://localhost:8080/api/users/delete/aliveli">http://localhost:8080/api/users/delete/aliveli</a>)

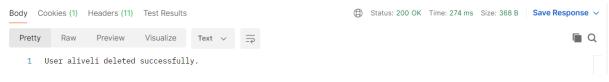
**Method Type:** DELETE

**Token Type**: Bearer (*Example Token*:

"eyJhbGciOiJIUzl1NiJ9.eyJzdWliOiJhbGl2ZWxpliwiaWF0ljoxNzQzNzQ0NzU4LCJleHAi OjE3NDM3ODA3NTh9.-feFcTg7RoXq22j0aJKnnT-lfKbJU-qezwXPBBYJeN0")



#### After request is sent:



#### **Postman Response**



**Database Screen** 

# Update e-mail

```
@PutMapping("/update-email/{username}")
public ResponseEntity<UserDTO> updateEmail(@PathVariable String
username, @RequestBody String newEmail) {
    try {
        UserDTO updatedUser = userService.updateEmail(username,
newEmail);
        return ResponseEntity.ok(updatedUser);
    } catch (RuntimeException e) {
        return
ResponseEntity.status(HttpStatus.NOT_FOUND).body(null);
    }
}
```

#### **Java Spring Boot Code**

URL: <a href="http://localhost:8080/api/users/update-email/">http://localhost:8080/api/users/update-email/</a>{username}
(Example: <a href="http://localhost:8080/api/users/update-email/aliveli">http://localhost:8080/api/users/update-email/aliveli</a>)

Method Type: PUT

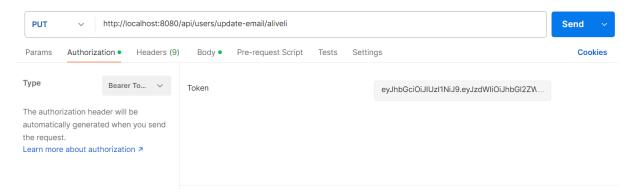
**Token Type**: Bearer (*Example Token*:

"eyJhbGciOiJIUzl1NiJ9.eyJzdWliOiJhbGl2ZWxpliwiaWF0ljoxNzQzNzY5NjE1LCJleHAiO jE3NDM4MDU2MTV9.VeUTbMhbi96BYjz\_7RbLNpID1x1\_xuOsyjog1xl3ryc")

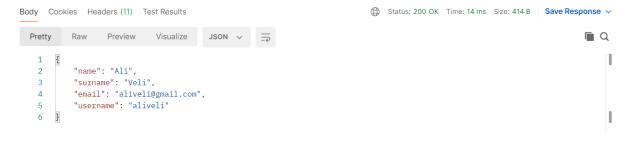
Sample JSON File 1: aliveli@gmail.com

Sample JSON File 2: aliveli@hotmail.com

#### **During Sending Process in Postman:**



After request is sent, email data field belongs to user will be updated:



# **Update Password**

**Java Spring Boot Code** 

URL: <a href="http://localhost:8080/api/users/update-password/">http://localhost:8080/api/users/update-password/</a>{username}(RequestParam)

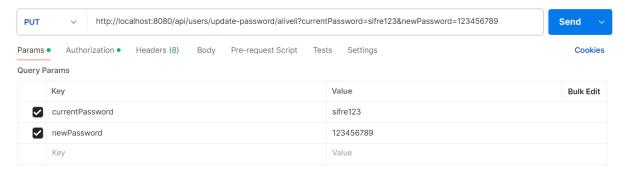
(Example: <a href="http://localhost:8080/api/users/update-password/aliveli">http://localhost:8080/api/users/update-password/aliveli</a> ?currentPassword=sifre123&newPassword=123456789)

Method Type: PUT

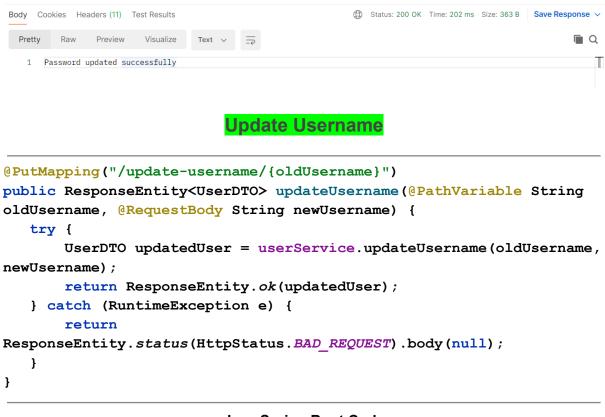
Token Type: Bearer (Example Token:

"eyJhbGciOiJIUzl1NiJ9.eyJzdWliOiJhbGl2ZWxpliwiaWF0ljoxNzQzNzY5NjE1LCJleHAiO jE3NDM4MDU2MTV9.VeUTbMhbi96BYjz\_7RbLNpID1x1\_xuOsyjog1xl3ryc")

#### During Sending Process in Postman (RequestParam (Key & Value)):



After request is sent, password data field belongs to user will be updated <u>if and only if</u> current password is provided correctly:



#### **Java Spring Boot Code**

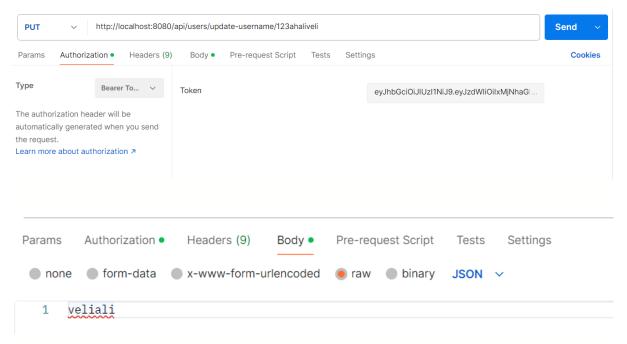
URL: <a href="http://localhost:8080/api/users/update-username/">http://localhost:8080/api/users/update-username/</a>{username}
(Example: <a href="http://localhost:8080/api/users/update-username/123ahaliveli">http://localhost:8080/api/users/update-username/123ahaliveli</a>)

Method Type: PUT

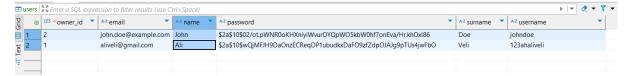
Token Type: Bearer (Example Token:

"eyJhbGciOiJlUzl1NiJ9.eyJzdWliOiJhbGl2ZWxpliwiaWF0ljoxNzQzNzY5NjE1LCJleHAiO jE3NDM4MDU2MTV9.VeUTbMhbi96BYjz\_7RbLNplD1x1\_xuOsyjog1xl3ryc")

# During Sending Process in Postman (RequestParam (Key & Value)):



#### **DB Before Sending Request:**

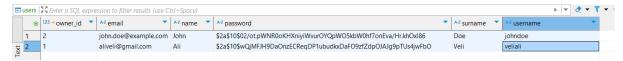


#### **Response After Sending Request:**



#### New token will be created in db screen,

#### **DB After Sending Request:**



# **Update Name & Surname**

```
@PutMapping("/update-name/{username}")
public ResponseEntity<UserDTO> updateNameAndSurname(@PathVariable
String username,
                                                    @RequestBody
UserDTO updatedInfo) {
   try {
       UserDTO updatedUser = userService.updateNameAndSurname(
               username,
               updatedInfo.getName(),
               updatedInfo.getSurname()
       );
       return ResponseEntity.ok(updatedUser);
   } catch (RuntimeException e) {
       return
ResponseEntity.status(HttpStatus.NOT FOUND).body(null);
}
```

#### **Java Spring Boot Code**

URL: <a href="http://localhost:8080/api/users/update-name/{username/">http://localhost:8080/api/users/update-name/</a>{username}

Method Type: PUT

**Token** is again necessary, but new one must be used if username is updated. **During Sending Process in Postman (RequestParam (Key & Value)):** 



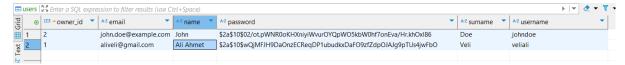
#### **DB Before Sending Request:**



#### **Response After Sending Request:**



#### **DB After Sending Request:**



# **Get User Tags**

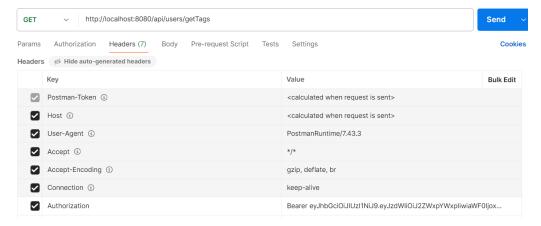
```
@GetMapping("/getTags")
public ResponseEntity<?> getUserTags(@RequestHeader("Authorization")
String authorizationHeader) {
   try {
       // Extract token from "Bearer <token>"
       if (authorizationHeader == null ||
!authorizationHeader.startsWith("Bearer ")) {
           return ResponseEntity. status (HttpStatus. UNAUTHORIZED)
                   .body("Authorization header missing or invalid");
       String token = authorizationHeader.replace("Bearer ", ""); //
Remove "Bearer " prefix
       // Call UserService to get tags
       List<TagDTO> tags = userService.getUserTags(token);
       return ResponseEntity.ok(tags);
   } catch (UsernameNotFoundException e) {
       return ResponseEntity.status(HttpStatus.NOT FOUND)
               .body("User not found: " + e.getMessage());
   } catch (JwtException e) {
       return ResponseEntity.status(HttpStatus.UNAUTHORIZED)
               .body("Invalid or expired token: " + e.getMessage());
   } catch (Exception e) {
       return
ResponseEntity.status(HttpStatus.INTERNAL SERVER ERROR)
               .body("An error occurred: " + e.getMessage());
   }
}
```

**Java Spring Boot Code** 

URL: <a href="http://localhost:8080/api/users/getTags">http://localhost:8080/api/users/getTags</a>

Method Type: GET

#### **SCREEN SENDING PROGRESS:**



```
Body Cookies Headers (11) Test Results
                                                                                     Status: 200 OK Time: 88 ms Size: 606 B Save Response V
            Raw Preview Visualize JSON V =
  Pretty
                                                                                                                                         Q
    1
    2
                 "tagId": 3,
    4
                     "name": "Ali Ahmet",
                     "surname": "Veli",
"email": "aliveli@gmail.com",
                     "username": "veliali"
    8
                 "toDos": [],
"tagName": "aybu"
   10
   11
   12
   13
                 "tagId": 2,
   14
                 "user": {
   15
                   "name": "Ali Ahmet",
   16
                     "surname": "Veli",
"email": "aliveli@gmail.com",
   17
   18
   19
                     "username": "veliali"
   20
                 "toDos": [],
"tagName": "project"
   21
   22
```

# TAG CONTROLLER LAYER METHODS TEST RESULT

# Create a Tag

```
@PostMapping("/create")
public ResponseEntity<?> createTag(@RequestParam String tagName,
@RequestHeader("Authorization") String token) {
    try {
        TagDTO createdTag = tagService.createTag(tagName, token);
        return

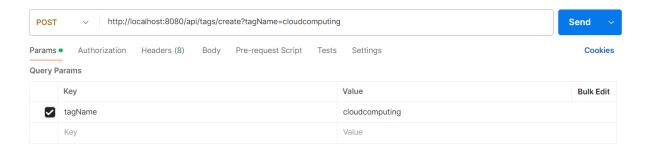
ResponseEntity.status(HttpStatus.CREATED).body(createdTag);
    } catch (Exception e) {
        return

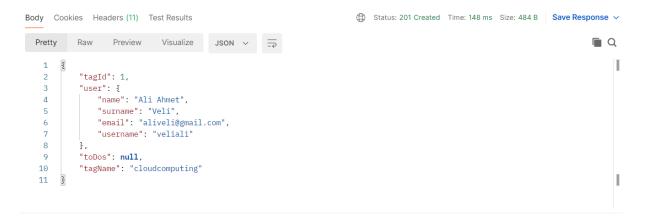
ResponseEntity.status(HttpStatus.BAD_REQUEST).body("Error occurred during Tag creation");
    }
}
```

#### **Java Spring Boot Code**

URL: (Example: <a href="http://localhost:8080/api/tags/create?tagName=cloudcomputing">http://localhost:8080/api/tags/create?tagName=cloudcomputing</a>)

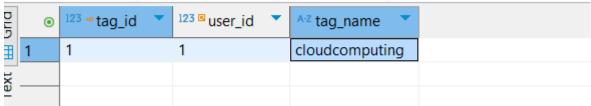
Method Type: POST





#### DB:

∃tags | 🚰 Enter a SQL expression to filter results (use Ctrl+Space)



# **Delete a Tag**

#### **Java Spring Boot Code**

Example URL: http://localhost:8080/api/tags/delete/1

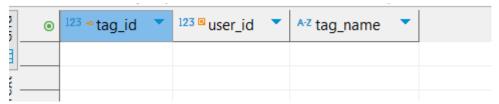
**Method Type: DELETE** 

#### Before sending request:





#### DB:



# **Update Tag Name**

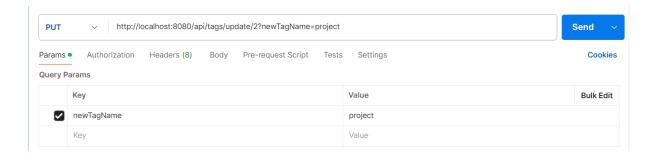
**Java Spring Boot Code** 

Example URL: http://localhost:8080/api/tags/update/2?newTagName=project

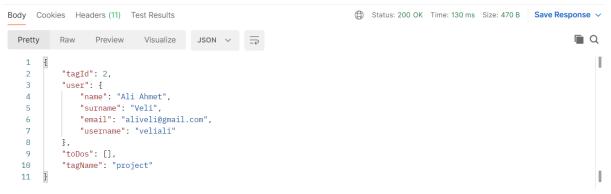
Method Type: PUT

Token has to be supplied.

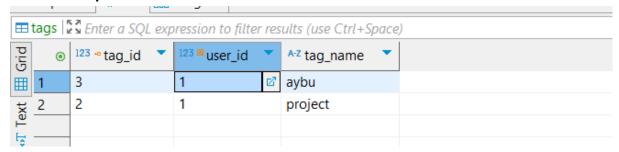
#### Before sending request:



#### Response:



#### **DB After Request:**



# TO DO CONTROLLER LAYER METHODS TEST RESULT

# **Create To Do**

```
@PostMapping("/create")
public ResponseEntity<?> createToDo(@RequestBody
ToDoCreationRequestWrapper newToDo, @RequestHeader("Authorization")
String token) {
   try {
       ToDo createdToDo = toDoService.createToDo(
               newToDo.getTitle(),
               newToDo.getDescription(),
               newToDo.getStartTime(),
               newToDo.getEndTime(),
               token
       );
       return
ResponseEntity. status (HttpStatus. CREATED) .body (createdToDo);
   } catch (RuntimeException e) {
       return
ResponseEntity.status(HttpStatus.BAD REQUEST).body(e.getMessage());
// Spesifik hata mesajı
   } catch (Exception e) {
       return
ResponseEntity. status (HttpStatus. INTERNAL SERVER ERROR).body ("Unexpe
cted error: " + e.getMessage());
   }
}
```

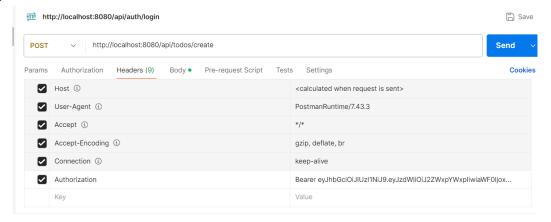
#### **Java Spring Boot Code**

URL: http://localhost:8080/api/todos/create

**Method Type: POST** 

Token must be supplied in the headers part.

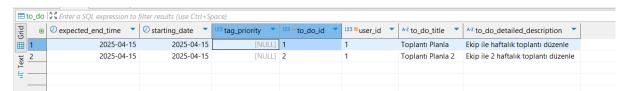
**Request Screen:** 



JSON:

```
{
                                    "title": "Toplantı Planla 2 ",
                      "description": "Ekip ile 2 haftalık toplantı düzenle",
                                    "startTime": "2025-04-15",
                                     "endTime": "2025-04-15"
                                                  }
Response Json:
                                                  {
                                              "todold": 2,
                                      "title": "Toplantı Planla 2 ",
                           "description": "Ekip ile 2 haftalık toplantı düzenle",
                                       "startDate": "2025-04-15",
                                   "expectedEndDate": "2025-04-15",
                                              "owner": {
                                          "name": "Ali Ahmet",
                                            "surname": "Veli",
                                      "email": "aliveli@gmail.com",
                                          "username": "veliali"
                                                  }
```

#### DB screen after request is sent:



# **Delete To Do**

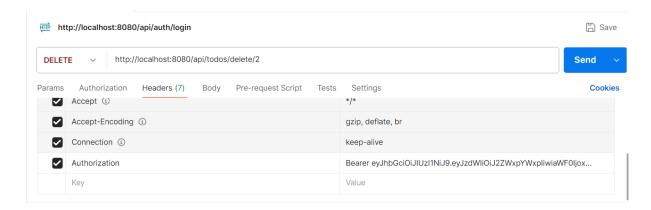
```
@DeleteMapping("/delete/{toDoId}")
public ResponseEntity<?> deleteToDo(@PathVariable Long toDoId,
@RequestHeader("Authorization") String token) {
    try {
        String result = toDoService.deleteToDo(toDoId, token);
        return ResponseEntity.status(HttpStatus.OK).body(result);
    } catch (Exception e) {
        return ResponseEntity.status(HttpStatus.NOT_FOUND).body("ToDo not found or unauthorized");
    }
}
```

**Java Spring Boot Code** 

URL: <a href="http://localhost:8080/api/todos/delete/{toDold}">http://localhost:8080/api/todos/delete/{toDold}</a> (EXAMPLE URL: <a href="http://localhost:8080/api/todos/delete/2">http://localhost:8080/api/todos/delete/2</a>)

**Method Type: DELETE** 

Token must be supplied in the headers part.



### HAVING NO JSON!

#### Response:



#### DB screen after request is sent:



# **Update Priority**

```
return ResponseEntity.status(HttpStatus.NOT_FOUND).body("ToDo
not found or unauthorized");
}
```

#### **Java Spring Boot Code**

Example URL: http://localhost:8080/api/todos/update-priority/1?newPriority=P1

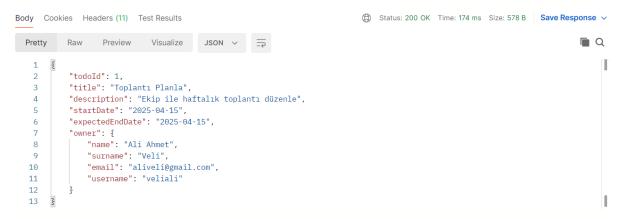
(Priority can be P1,P2,P3,P4 based on the Eisenhower Matrix)

Method Type: PUT

#### **DB Screen Before Sending Request:**



#### Response:



#### **DB Screen After Sending Request:**



# **Update To Do Dates (Start Date and Expected End Date)**

```
ToDoDTO updatedToDo = toDoService.updateDates(toDoId,
newStartDate, newExpectedEndDate, token);
    return
ResponseEntity.status(HttpStatus.OK).body(updatedToDo);
} catch (Exception e) {
    return ResponseEntity.status(HttpStatus.NOT_FOUND).body("ToDo not found or unauthorized");
}
}
```

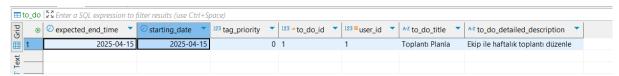
#### **Java Spring Boot Code**

#### **Example URL:**

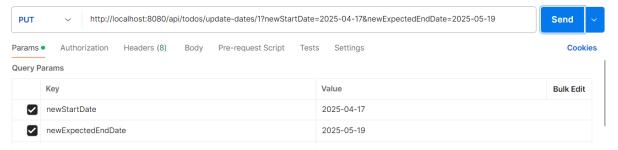
http://localhost:8080/api/todos/update-dates/1?newStartDate=2025-04-17&newExpectedEndDate=2025-05-19

#### Method Type: PUT

#### **DB Screen Before Sending Request:**



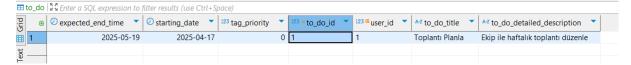
#### **SCREEN SENDING PROGRESS:**



#### **RESPONSE:**



#### **DB Screen After Sending Request:**



# **Update To Do Title**

#### **Java Spring Boot Code**

Example URL: http://localhost:8080/api/todos/update-title/1?newTitle=Advisor ile gorusme

Method Type: PUT

#### **Request Screen:**



```
Body Cookies Headers (11) Test Results
                                                                              Status: 200 OK Time: 103 ms Size: 581 B Save Response V
  Pretty Raw Preview Visualize JSON V
                                                                                                                                ■ Q
   1
            "todoId": 1,
            "title": "Advisor ile gorusme",
            "description": "Ekip ile haftalık toplantı düzenle",
            "startDate": "2025-04-17",
            "expectedEndDate": "2025-05-19",
                "name": "Ali Ahmet",
               "surname": "Veli",
"email": "aliveli@gmail.com",
  10
                "username": "veliali"
  11
  12
```

#### **DB Screen After Request:**



# **Update Description**

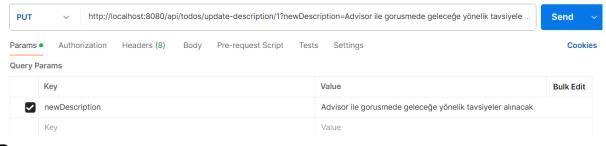
```
@PutMapping("/update-description/{toDoId}")
public ResponseEntity<?> updateDescription(@PathVariable Long
toDoId, @RequestParam String newDescription,
@RequestHeader("Authorization") String token) {
    try {
        ToDoDTO updatedToDo = toDoService.updateDescription(toDoId,
    newDescription, token);
        return
ResponseEntity.status(HttpStatus.OK).body(updatedToDo);
    } catch (Exception e) {
        return ResponseEntity.status(HttpStatus.NOT_FOUND).body("ToDo
not found or unauthorized");
    }
}
```

#### **Java Spring Boot Code**

#### **Example URL:**

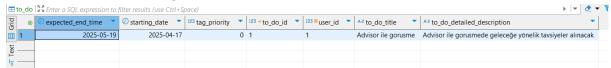
http://localhost:8080/api/todos/update-description/1?newDescription=Advisor ile gorusmede geleceğe yönelik tavsiyeler alınacak

# Method Type: PUT Request Screen:





#### **DB Screen After Sending Request:**



# Assign Tag to To Do

```
@PutMapping("/add-tag/{toDoId}")
public ResponseEntity<?> addTag(@PathVariable Long toDoId,
    @RequestParam Long tagId, @RequestHeader("Authorization") String
token) {
    try {
        ToDoDTO updatedToDo = toDoService.addTag(toDoId, tagId,
token);
        return
ResponseEntity.status(HttpStatus.OK).body(updatedToDo);
    } catch (Exception e) {
        return ResponseEntity.status(HttpStatus.NOT_FOUND).body("ToDo
or Tag not found, or unauthorized");
    }
}
```

#### **Java Spring Boot Code**

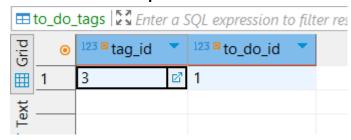
Example URL: <a href="http://localhost:8080/api/todos/add-tag/1?tagld=3">http://localhost:8080/api/todos/add-tag/1?tagld=3</a>

Method Type: PUT

#### Sending process:



#### **DB Screen After Request:**



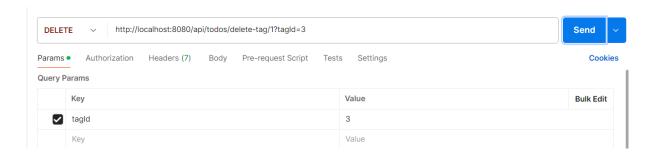
# **Delete Tag From To Do**

**Java Spring Boot Code** 

Example URL: <a href="http://localhost:8080/api/todos/delete-tag/1?tagld=3">http://localhost:8080/api/todos/delete-tag/1?tagld=3</a>

**Method Type: DELETE** 

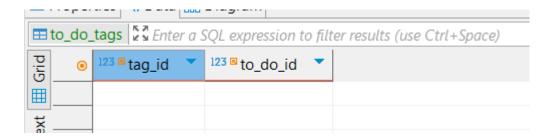
#### Sending process:



#### Response:

```
Body Cookies Headers (11) Test Results
                                                                                   Status: 200 OK Time: 42 ms Size: 605 B Save Response V
  Pretty
                                Visualize
                                             JSON V
                                                                                                                                        ■ Q
                    Preview
    1
    2
             "todoId": 1,
             "title": "Advisor ile gorusme",
    3
             "description": "Advisor ile gorusmede geleceğe yönelik tavsiyeler alınacak", "startDate": "2025-04-17",
    5
             "expectedEndDate": "2025-05-19",
              'owner": {
                 "name": "Ali Ahmet",
    8
                 "surname": "Veli",
                 "email": "aliveli@gmail.com",
   10
                 "username": "veliali"
   11
   12
   13
```

#### **DB Screen After Request:**



Tag belongs to a particular to-do list item is deleted.

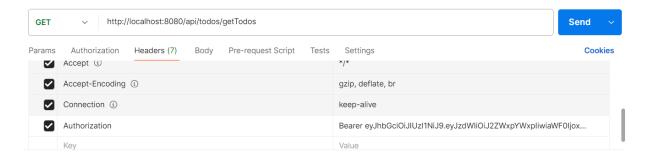
#### **GET TO DO FROM USER**

**Java Spring Boot Code** 

URL: http://localhost:8080/api/todos/getTodos

Method Type: GET

#### Sending process:



```
Body Cookies Headers (11) Test Results
                                                                                      Status: 200 OK Time: 114 ms Size: 607 B Save Response V
                                                                                                                                             □ Q
  Pretty
             Raw
                     Preview
                                 Visualize
    1
                  "todoId": 1,
                  "title": "Advisor ile gorusme".
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