Bug Summary

**ID:** BUG-009  
**Title:** PATCH endpoints return empty body (no confirmation of update)

**Description:**  
PATCH requests across multiple endpoints (e.g., /projects/{id}) return HTTP 200 OK but no response body, leaving clients uncertain about whether updates were successfully applied. This violates standard REST semantics, where PATCH typically returns the updated resource or a 204 No Content explicitly.

**Impact / Risk:**  
- Clients cannot verify update success without performing an additional GET request.  
- Breaks REST best practices and automated test validation patterns.  
- May cause synchronization issues in clients expecting updated data.

**Steps to Reproduce:**  
1. Start REST API server: java -jar runTodoManagerRestAPI-1.5.5.jar  
2. Send: POST /projects {"title":"S1 Project"} → 201 Created (capture id).  
3. Send: PATCH /projects/{id} {"title":"S1 Project (Updated)"} → 200 OK (empty body).  
4. Send: GET /projects/{id} → observe title changed only after manual verification.

**Expected vs Observed:**  
- **Expected:** PATCH response should include the updated resource JSON or a clear 204 No Content.  
- **Observed:** HTTP 200 OK with no body content.

**Affected Endpoints:**  
/projects/{id}, /todos/{id}, /categories/{id} (potentially all PATCH-capable endpoints)

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**Resolution Suggestion:**  
Return the updated resource representation upon successful PATCH or explicitly use 204 No Content for consistency across all PATCH implementations.