**Application Api Access**

**CRUD Operations Access:**

To retrieve or write data use next url

GET, PUT and DELETE: `/api/{entity}/{id?}`

POST: `/api/{entity}`

where {entity} is recrd type ('project', 'projectTask') and {id} is optional Id parameter, required for GET, PUT and DELETE actions

Use appropriate requset method type:

GET: to retrieve existing entity

PUT: to update existing entity

POST: to write new entity - returns Id assigned to record

DELETE: to delete existing entity. All record linked to this record will be deleted also

PUT and POST methods accept model in request body.

**ProjectModel**:

int? ParentProjectId - optional, Id of existing Parent Project record

string Code - required, maxLength - 4

string Name - required, maxLength - 50

DateTime StartDate - required, ISO 8601

DateTime FinishDate - required, ISO 8601

int State - readonly, logic for values:

1 - Completed, if all tasks in the project and its subprojects have state Completed

2 - InProgress, if there is at least one task with state inProgress in project or its subprojects

3 - Planned in all other cases

**ProjectTaskModel**:

int ProjectId - required, Id of existing Project record

int? ParentTaskId - optional, Id of existing Parent Task record

string Name - required, maxLength - 50

string Description - required, maxLength - 255

DateTime StartDate { get; set; }

DateTime FinishDate { get; set; }

int State { get; set; } - requered, allowed values: 1 for Planned, 2 for InProgress, 3 for Completed

**Response Model** have structure:

bool Success - true if operation processed with no errors

string Error - Error message if operation failed

any Data - response data for operation result. For POST operation - record Id, for GET operations - corresponding entity type Model

Example:

GET project with id 16: `/api/project/16`

**Report Access:**

To generate report in Excel format use GET method url

`/api/ProjectTask/report/{date}`

where {date} is Date in ISO 8601 format report will be generated for.

Response: report.xlsx file with tasks where StartDate is earlier or equals report date and FinishDate is after or equals report date.

File will have next columns:

Project Name,

Project Code,

Project StertDate,

Project FinishDate,

Task Name,

Task Description,

Task StertDate,

Task FinishDate