

```
library TaskAPI;
```

```
uses
```

```
  Winapi.ActiveX,  
  System.Win.ComObj,  
  Web.WebBroker,  
  Web.Win.ISAPIApp,  
  Web.Win.ISAPIThreadPool,  
  WebModuleUnit in 'WebModuleUnit.pas' {WebModule1: TWebModule};
```

```
{$R *.res}
```

```
exports
```

```
  GetExtensionVersion,  
  HttpExtensionProc,  
  TerminateExtension;
```

```
begin
```

```
  CoInitFlags := COINIT_MULTITHREADED;  
  Application.Initialize;  
  Application.WebModuleClass := WebModuleClass;  
  Application.Run;
```

```
end.
```

```
procedure TWebModule1.WebModuleCreate(Sender: TObject);
```

```
begin
```

```
  FDConnection1.DriverName := 'PG';  
  FDConnection1.Params.Values['Server'] := 'localhost';  
  FDConnection1.Params.Values['Database'] := 'task_manager';  
  FDConnection1.Params.Values['User_Name'] := 'postgres';  
  FDConnection1.Params.Values['Password'] := 'ваш_пароль';  
  FDConnection1.Params.Values['CharacterSet'] := 'UTF8'; // Для поддержки кириллицы  
  FDConnection1.Connected := True; // Активируйте подключение
```

```
end;
```

```
procedure TWebModule1.WebModule1TasksGetAction(Sender: TObject;
```

```
  Request: TWebRequest; Response: TWebResponse; var Handled: Boolean);
```

```
var
```

```
  Query: TFDQuery;  
  JSONArray: TJSONArray;
```

```
begin
```

```
  Query := TFDQuery.Create(nil);
```

```
  try
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```
    Query.Connection := FDConnection1;  
    Query.SQL.Text := 'SELECT * FROM tasks ORDER BY task_id';  
    Query.Open;
```

```
    JSONArray := TJSONArray.Create;
```

```

try
  while not Query.Eof do
    begin
      JSONArray.AddElement(
        TJSONObject.Create
          .AddPair('id', Query.FieldName('task_id').AsInteger)
          .AddPair('title', Query.FieldName('title').AsString)
          .AddPair('description', Query.FieldName('description').AsString)
          .AddPair('status', Query.FieldName('status').AsString)
          .AddPair('due_date', FormatDateTime('yyyy-mm-dd',
Query.FieldName('due_date').AsDateTime))
      );
      Query.Next;
    end;
    Response.Content := JSONArray.ToString;
  finally
    JSONArray.Free;
  end;
finally
  Query.Free;
end;
Response.ContentType := 'application/json';
Handled := True;
end;

procedure TWebModule1.WebModule1TasksPostAction(Sender: TObject;
  Request: TWebRequest; Response: TWebResponse; var Handled: Boolean);
var
  JSON: TJSONObject;
  Query: TFDQuery;
begin
  JSON := TJSONObject.ParseJSONValue(Request.Content) as TJSONObject;
  try
    Query := TFDQuery.Create(nil);
    try
      Query.Connection := FDConnection1;
      Query.SQL.Text :=
        'INSERT INTO tasks (title, description, status, due_date) ' +
        'VALUES (:title, :desc, :status, :due_date) RETURNING task_id';

      Query.ParamByName('title').Value := JSON.GetValue('title').Value;
      Query.ParamByName('desc').Value := JSON.GetValue('description').Value;
      Query.ParamByName('status').Value := 'Pending'; // Статус по умолчанию
      Query.ParamByName('due_date').Value :=
        StrToDate(JSON.GetValue('due_date').Value); // Формат: 'YYYY-MM-DD'

      Query.Open;
    
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Response.Content :=
  TJSONObject.Create
    .AddPair('id', Query.FieldByName('task_id').AsInteger)
    .AddPair('status', 'created')
    .ToString;
finally
  Query.Free;
end;
finally
  JSON.Free;
end;
Response.ContentType := 'application/json';
Response.StatusCode := 201; // 201 Created
Handled := True;
end;

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      procedure TWebModule1.WebModule1TaskPutAction(Sender: TObject;
Request: TWebRequest; Response: TWebResponse; var Handled: Boolean);
var
  TaskID: Integer;
  JSON: TJSONObject;
  Query: TFDQuery;
begin
  TaskID := StrToInt(Request.PathInfo.Substring(7)); // Извлекаем ID из /tasks/123
  JSON := TJSONObject.ParseJSONValue(Request.Content) as TJSONObject;

  try
    Query := TFDQuery.Create(nil);
    try
      Query.Connection := FDConnection1;
      Query.SQL.Text :=
        'UPDATE tasks SET ' +
        'title = :title, ' +
        'description = :desc, ' +
        'status = :status, ' +
        'due_date = :due_date ' +
        'WHERE task_id = :id';

      Query.ParamByName('id').Value := TaskID;
      Query.ParamByName('title').Value := JSON.GetValue('title').Value;
      Query.ParamByName('desc').Value := JSON.GetValue('description').Value;
      Query.ParamByName('status').Value := JSON.GetValue('status').Value;
      Query.ParamByName('due_date').Value :=
        StrToDate(JSON.GetValue('due_date').Value);

      Query.ExecSQL;

      Response.Content :=

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        TJSONObject.Create
        .AddPair('status', 'updated')
        .ToString;
    finally
        Query.Free;
    end;
finally
    JSON.Free;
end;
Response.ContentType := 'application/json';
Handled := True;
end;

```

```

procedure TWebModule1.WebModule1TaskDeleteAction(Sender: TObject;
    Request: TWebRequest; Response: TWebResponse; var Handled: Boolean);
var
    TaskID: Integer;
    Query: TFDQuery;
begin
    TaskID := StrToInt(Request.PathInfo.Substring(7)); // Извлекаем ID из /tasks/123

```

```

    Query := TFDQuery.Create(nil);
    try
        Query.Connection := FDConnection1;
        Query.SQL.Text := 'DELETE FROM tasks WHERE task_id = :id';
        Query.ParamByName('id').Value := TaskID;
        Query.ExecSQL;

        Response.Content :=
            TJSONObject.Create
            .AddPair('status', 'deleted')
            .ToString;
    finally
        Query.Free;
    end;
    Response.ContentType := 'application/json';
    Handled := True;
end;

```

```

procedure TWebModule1.WebModule1Exception(Sender: TObject;
    Request: TWebRequest; Response: TWebResponse; var Handled: Boolean);
begin
    Response.Content :=
        TJSONObject.Create
        .AddPair('error', Exception(ExceptObject).Message)
        .ToString;
    Response.ContentType := 'application/json';
    Response.StatusCode := 500;

```

```
Handled := True;  
end;
```