**Data exchange with AL language:**

For comfortable work, I advise you to install POSTMAN ([www.getpostman.com](http://www.getpostman.com))

**Task 2.**

Parsing complex json response

**Sources:**

1. FIFA World CUP 2018 results API:

https://api.fifa.com/api/v1/calendar/matches?idseason=254645&idcompetition=17&language=en-GB&count=100

1. GitHub Repository with source code: github.com/abaludin/FIFA

**Step 1**

Create FIFA results table and Page (list type) with next fields:

* Match no. (Integer) \*key
* Home Team (Text)
* Away Team (Text)
* Home Team Result (Text)
* Away Team Result (Text)
* City (text)
* DateAndTime (DateTime)
* Flag (Media)

**Step 2**

Create management codeunit:

* Create RefreshResults function
* Make Fifa Results clearance before run (DeleteAll)
* Get response from Fifa API:

if not Client.Get(URL, ResponseMessage) then

   Error(Text001\_Err);

ResponseMessage.Content().ReadAs(ResponseText);

if not ResponseMessage.IsSuccessStatusCode() then

   error(Text002\_Err, ResponseMessage.HttpStatusCode(), ResponseText);

**Step 3**

Parse response

* Get Results token as array:

ContentToken.ReadFrom(ResponseText);

ContentToken.AsObject().Get('Results', ResultsToken);

for i := 0 to ResultsToken.AsArray().Count() - 1 do begin

    ResultsToken.AsArray().Get(i, MatchToken);

   InsertResults(MatchToken);

end;

* For each token in array create new record in FIFA Results table (create InsertResults procedure)
* Find which token compares to table’s fields. Token values contains different data types. Import Flag media will be described in Step 4.
* Remember that some games ended in overtime and TeamScore may be not the final score.
* To get token inside token use next construction:

ParentToken.AsObject().SelectToken('Token.SubToken', ChildToken);

**Step 4**

Import Flag Picture

* Find picture URL in Home and Away tokens. It looks like this:

[https://api.fifa.com/api/v1/picture/flags-{format}-{size}/RUS](https://api.fifa.com/api/v1/picture/flags-%7bformat%7d-%7bsize%7d/RUS)

* Use **fwc2018** instead of {format} and **1** instead of {size}. Use TextBuilder data type for that
* You are able to show only one picture for record (in tiles view) so you could import Home team flag or Winner flag (a little challenge)
* Get picture stream with separate HttpClient and import it to Flag field

**Step 5**

* On Fifa Results table create new Brick fieldgroup to show flag on list like this:

fieldgroup(Brick; "Flag", MatchNo, "HomeTeam", HomeTeamResult, AwayTeam, AwayTeamResult)

**Step 6**

Create action for Fifa Results page to call Refresh Results procedure. You need to get something like that:

