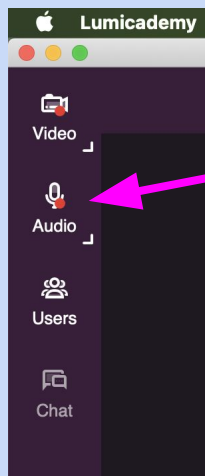
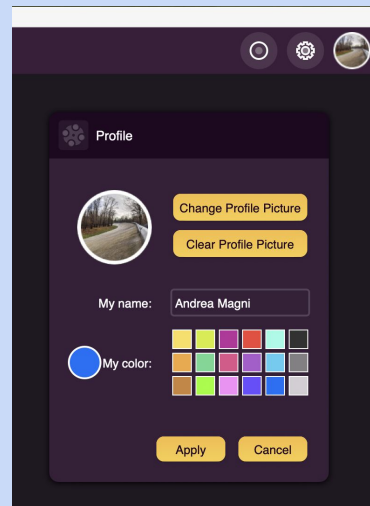


- La piattaforma permette ai partecipanti di condividere la vostra webcam e il microfono
 - Per cortesia, aprite il microfono solo per fare domande
- Per accedere alla chat Slack:
 - <https://andreamagni.eu/live.html>



Pallino rosso = spento, click per attivare
(vale per Video e Audio)



Potete impostare
il vostro nome
utente, se volete



Delphi Live - Italia

22 Aprile 2020

Andrea Magni
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Andrea Magni

Ingegnere informatico, Monza

Sviluppatore, Formatore, Consulente
Desktop, Server, Web, Mobile e IoT

TFrameStand, TFormStand, FMXER (FMX)

MARS-Curiosity (REST Library)

FMX Book (coming)




<https://andreamagni.eu>

Piattaforma Lumicademy

- <https://www.lumicademy.com/>
- <https://blog.grijjy.com/>
 - Allen Drennan
 - Erik van Bilsen
- Applicazioni FMX
 - Windows e OS X
 - con integrazioni a basso livello (GPU, video)



Agenda

- JWT JSON Web Token
 - Autenticazione
 - Autorizzazione
 - Dependency Injection del Token
 - Integrazioni con FireDAC
 - Q&A e saluti
- 

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdW  
IiOiIxmjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG91I  
iwiyWRtaW4iOnRydWV9.TJVA95OrM7E2cBab30RMhrH  
DcEfxjoYZgeFONFh7HgQ
```

<https://jwt.io/introduction/>

<https://auth0.com/learn/json-web-tokens/>

Key aspects:

- ~~Standard~~ Quite popular
- No server-side session data → Scalability

- **Client sends credential to server**
 - over secure channel
 - POST + https
- **Server validates credentials and generates a token**
 - Set the content of the token
 - Signs the token with a secret key
 - Sends the token to the client
- **Client stores the token**
 - Memory
 - Cookies
 - Local storage
- **Each (authenticated) request is endorsed with the token:**
 - Authorization: bearer <token>
 - Cookie

- TMAPSTokenResource, unit MARS.Core.Token.Resource
- <http://localhost:8080/rest/default/token>
 - GET
 - POST
 - DELETE
- Autenticazione di esempio:
 - qualunque username
 - ora corrente (es. 14 se sono le 14 lato server)

Built-in parameters



- `JWT.Issuer = MARS-Curiosity`
- `JWT.Secret = {GUID}`
- `JWT.CookieEnabled = true`
- `JWT.CookieName = access_token`
- `JWT.CookieDomain = {URL.HostName}`
- `JWT.CookiePath = {URL.BasePath}`
- `JWT.Duration = 1 (day)`
- `JWT.CookieSecure = false`

Authorization (RBA)



```
type
  [Path('item'), Produces(TMediaType.APPLICATION_JSON)]
  TItemResource = class
    private
    protected
    public
      [GET, PermitAll]
      function Retrieve: TJSONObject;

      [PUT, RolesAllowed('poweruser', 'admin')]
      function Update([BodyParam] AJSONObj: TJSONObject): TJSONObject;

      [POST, RolesAllowed('admin')]
      function Add([BodyParam] AJSONObj: TJSONObject): TJSONObject;
    end;
```

Dependency Injection and TMARSToken



- `{ $IFDEF MSWINDOWS } , MARS.mORMotJWT.Token { $ELSE } , MARS.JOSEJWT.Token { $ENDIF }`
- MARS.mORMotJWT.Token.InjectionService
 - <https://github.com/andrea-magni/mORMot-JWT>
- MARS.JOSEJWT.Token.InjectionService
 - <https://github.com/andrea-magni/delphi-jose-jwt>
- [Context] Token: TMARSToken;
- Token.Token, Token.UserName, Token.Roles, Token.Claims, ...

- Macro and Param injection
 - Token_Token
 - Token_UserName
 - Token_HasRole_[RoleName]
 - Token_Claim_[ClaimName]
 - Token_[PropertyName]





Grazie