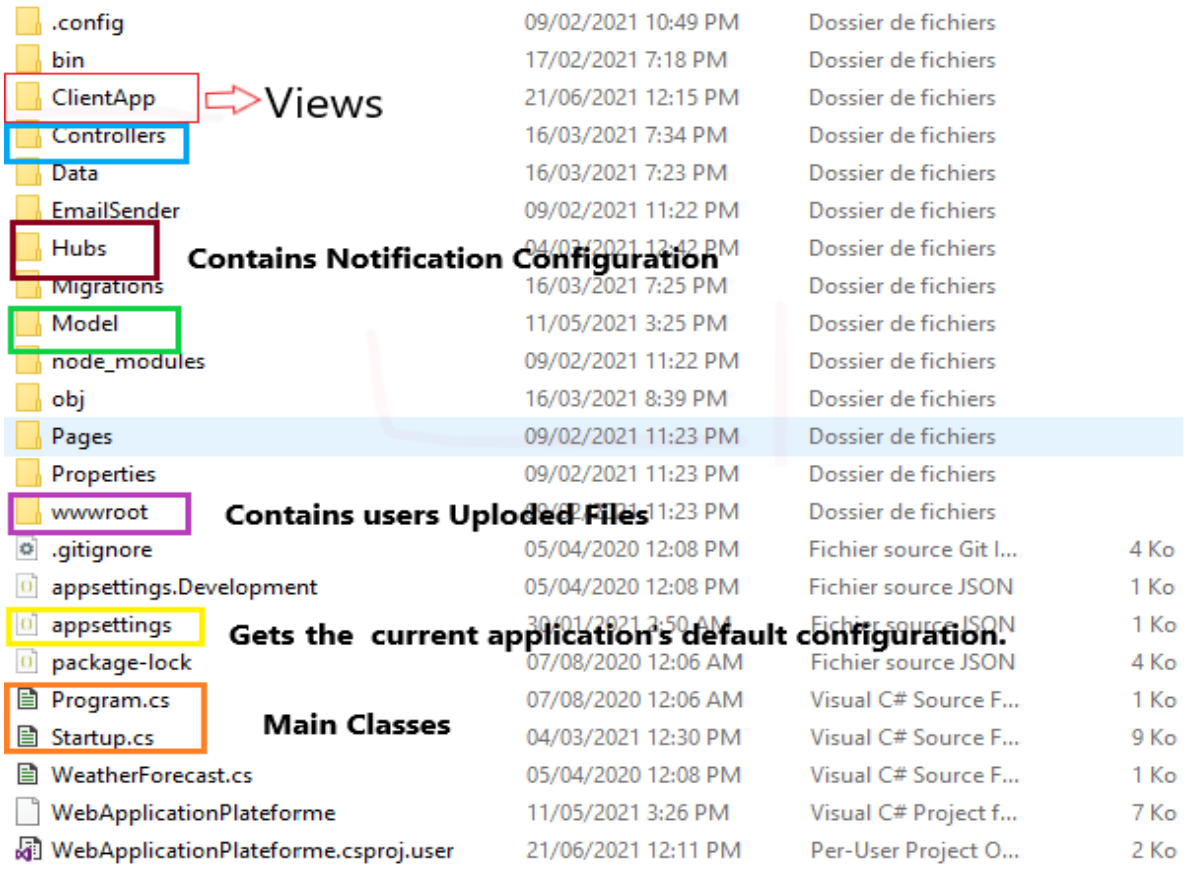
Application Architecture

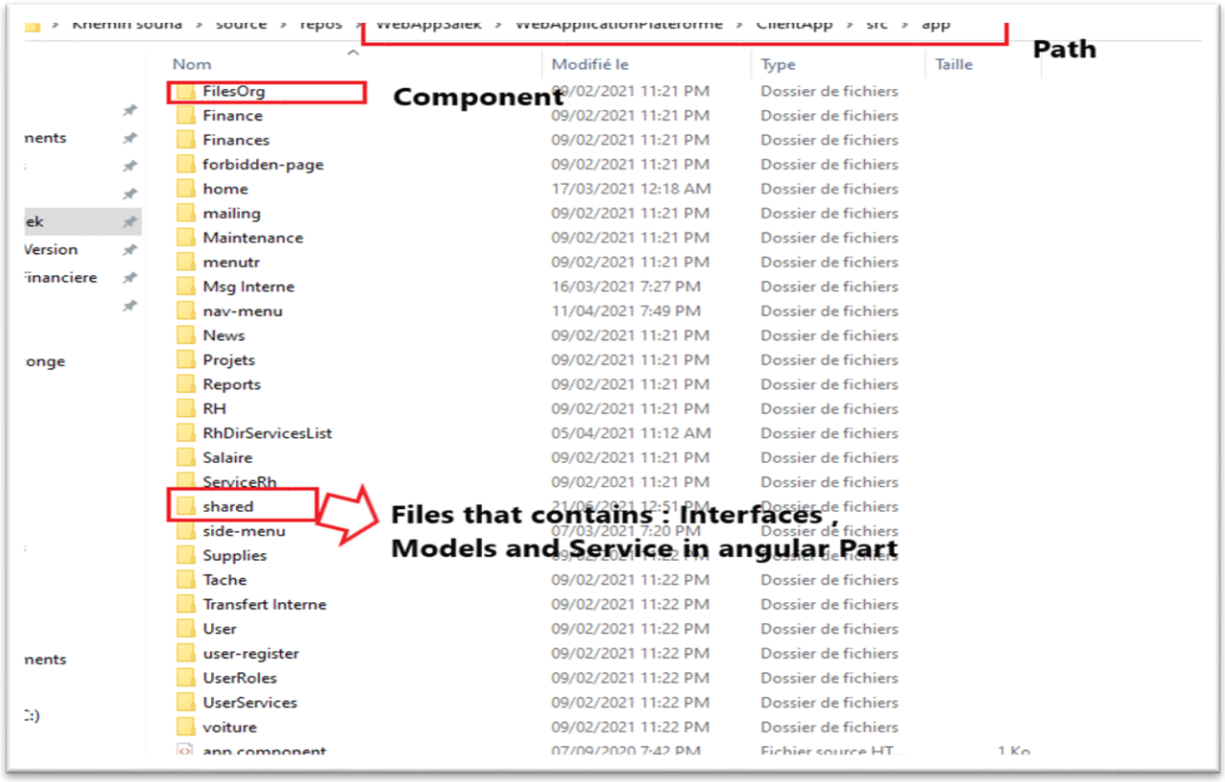
Our application has an MVC architecture, stands for Model, View, and Controller, it separates our application into three components Model, View, and Controller.



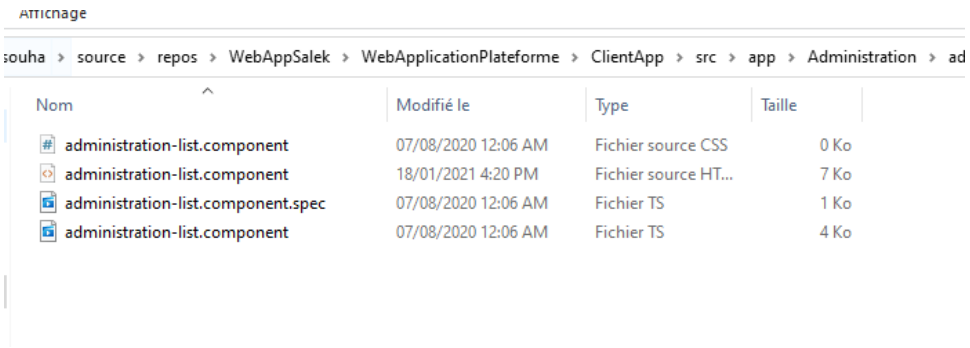
Frontend Part :

1. Views :

It's a user interface, it displays model data to the user and also enables them to modify. It's the Frontend part with angular which contains components with HTML, CSS and TS files.

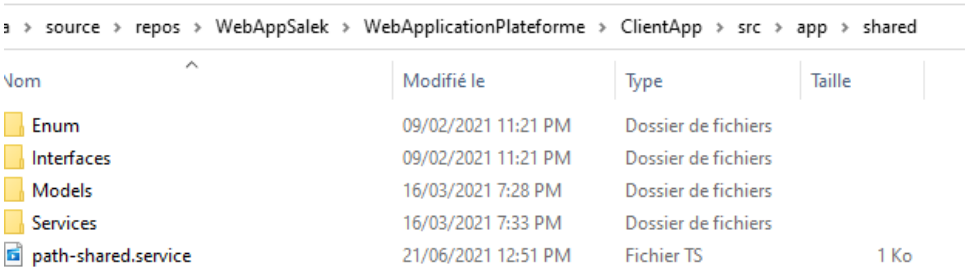


1.1 : Component :

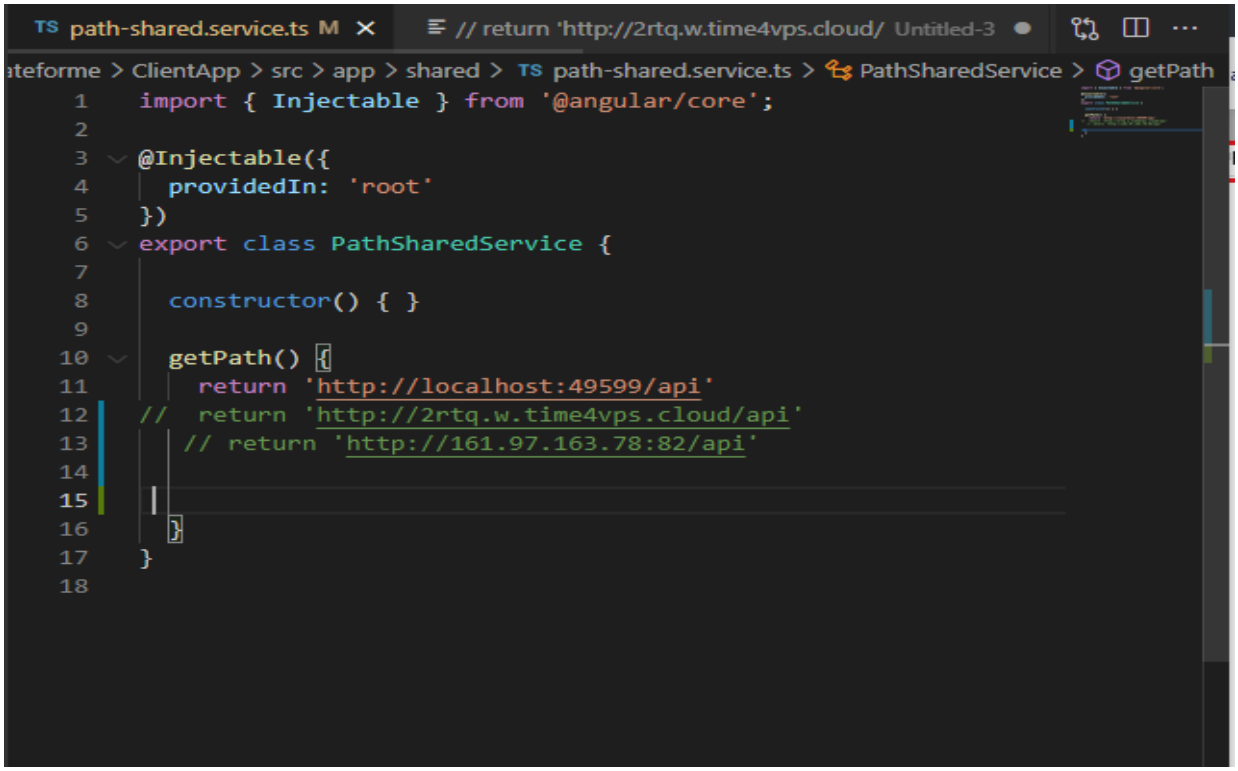


1.2 : Shared :

It Contains Interfaces, Models , and Services .



Path file is the one who is responsible for defining the web api path.



Backend Part :

2. Models:

Model represents the shape of the data. A class in C# is used to describe a model. Model objects store data retrieved from the database.

C: > Users > khemi > source > repos > WebAppSalek > WebApplicationPlateforme > Model > AdministrativeCommunication > Decision >

```
using System;
using System.Collections.Generic;
using System.ComponentModel.DataAnnotations.Schema;
using System.Linq;
using System.Threading.Tasks;
using WebApplicationPlateforme.Model.User;

namespace WebApplicationPlateforme.Model.AdministrativeCommunication.Decision
{
    public class Decision
    {
        public int Id { get; set; }
        public string type { get; set; }
        public string date { get; set; }
        public string typeRecue { get; set; }
        public string priorite { get; set; }
        public string securite { get; set; }
        public string nomOrg { get; set; }
        public string nomProp { get; set; }
        public string tel { get; set; }
        public string registreCivil { get; set; }
        public string numAutorite { get; set; }
        public string sujet { get; set; }
        public string typeEmise { get; set; }
        public string nomLivreur { get; set; }
        public string operationlivraison { get; set; }
        public string orgEnregTr { get; set; }
        public string autoriteExterne { get; set; }
        public string copieExterne { get; set; }
        public string copieA { get; set; }
        public string nbPjNumerique { get; set; }
```

3. Controllers :

The controller handles the user request. Typically, the user uses the view and raises an HTTP request, which will be handled by the controller. The controller processes the request and returns the appropriate view as a response.

It Contains the Get, Put , Post , Delete Methods and provides an web api path to connect users requests.

C: > Users > khemi > source > repos > WebAppSalek > WebApplicationPlateforme > Controllers > CommunicationAdministrative > Emise > LiaisonEsController.cs

```
using WebApplicationPlateforme.Model.AdministrativeCommunication.Emise;

namespace WebApplicationPlateforme.Controllers.CommunicationAdministrative.Emise
{
    [Route("api/[controller]")]
    [ApiController]
    public class LiaisonEsController : ControllerBase
    {
        private readonly FinanceContext _context;

        public LiaisonEsController(FinanceContext context)
        {
            _context = context;
        }

        // GET: api/LiaisonEs
        [HttpGet]
        public async Task<ActionResult<IEnumerable<LiaisonE>>> GetliaisonsE()
        {
            return await _context.liaisonsE.ToListAsync();
        }

        // GET: api/LiaisonEs/5
        [HttpGet("{id}")]
        public async Task<ActionResult<LiaisonE>> GetLiaisonE(int id)
        {
            var liaisonE = await _context.liaisonsE.FindAsync(id);

            if (liaisonE == null)
            {
                return NotFound();
```

4. Startup:

The Startup class provides the entry point for an application, and is required for all applications.The place where we set up configuration and winnig up services.

Our Startup class defines a Configure method, and also define a ConfigureService method, which will be called when the application is started.

Configure Method :

C: > Users > khemi > source > repos > WebAppSalek > WebApplicationPlateforme > Startup.cs

```
159         // This method gets called by the runtime. Use this method to configure the HTTP request pipeline.
160         public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
161         {
162
163             //Path for files
164
165             if (string.IsNullOrWhiteSpace(env.WebRootPath)) env.WebRootPath = Path.Combine(Directory.GetCurrentDirectory(), "wwwroot");
166
167
168
169             //app.UseHangfireDashboard();
170
171            /* backgroundJobClient.Enqueue(() => Console.WriteLine("hello Hanfire Job"));
172
173             recurringJobManager.AddOrUpdate("Run every minute", () => Console.WriteLine("test reccuring job"), "* * * * *");*/
174             //Cron.Monthly
175             app.UseForwardedHeaders();
176             if (env.IsDevelopment())
177             {
178                 app.UseDeveloperExceptionPage();
179                 app.UseHttpsRedirection();
180             }
181             else
182             {
183                 app.UseExceptionHandler("/Error");
184                 // The default HSTS value is 30 days. You may want to change this for production scenarios, see https://aka.ms/aspnetcore-hsts.
185                 app.UseHsts();
186             }
187
188             // app.UseHttpsRedirection();
189             // app.UseDefaultFiles();
```

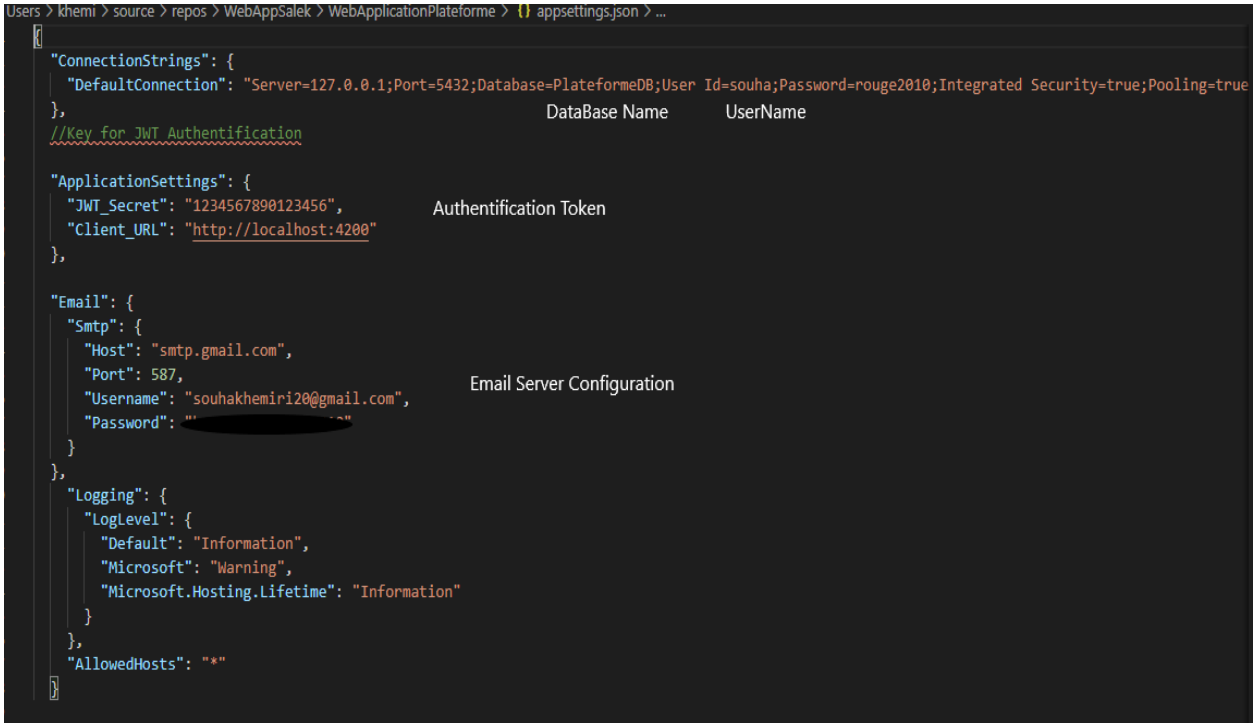
ConfigureServices Method :

C: > Users > khemi > source > repos > WebAppSalek > WebApplicationPlateforme > Startup.cs

```
28  namespace WebApplicationPlateforme
29  {
30      public class Startup
31      {
32          public Startup(IConfiguration configuration)
33          {
34              Configuration = configuration;
35          }
36
37          public IConfiguration Configuration { get; }
38
39          // This method gets called by the runtime. Use this method to add services to the container.
40          public void ConfigureServices(IServiceCollection services)
41          {
42              services.AddScoped<SmtpClient>((serviceProvider) =>
43              {
44                  var config = serviceProvider.GetRequiredService<IConfiguration>();
45                  return new SmtpClient()
46                  {
47                      Host = config.GetValue<String>("Email:Smtp:Host"),
48                      Port = config.GetValue<int>("Email:Smtp:Port"),
49                      Credentials = new NetworkCredential(
50                                config.GetValue<String>("Email:Smtp:Username"),
51                                config.GetValue<String>("Email:Smtp:Password")
52                            )
53                  };
54              });
55              //Inject Hangfire
56              /*  services.AddHangfire(config =>
57                config.SetDataCompatibilityLevel(CompatibilityLevel.Version_170)
```

5. AppSettings:

Gets current application's default configuration.


Users > khemi > source > repos > WebAppSalek > WebApplicationPlateforme > {} appsettings.json > ...
{
"ConnectionStrings": {
"DefaultConnection": "Server=127.0.0.1;Port=5432;Database=PlateformeDB;User Id=souha;Password=rouge2010;Integrated Security=true;Pooling=true
},
DataBase Name
UserName
//Key for JWT Authentification
"ApplicationSettings": {
"JWT_Secret": "1234567890123456",
Authentification Token
"Client_URL": "http://localhost:4200"
},
"Email": {
"Smtp": {
"Host": "smtp.gmail.com",
"Port": 587,
"Username": "souhakhemiri20@gmail.com",
Email Server Configuration
"Password":
}
},
"Logging": {
"LogLevel": {
"Default": "Information",
"Microsoft": "Warning",
"Microsoft.Hosting.Lifetime": "Information"
}
},
"AllowedHosts": "*"
}