**Online Auction Application**

# Downloading

* From the link download Backend.zip file and Frontend.zip file
* Then Unzip those two files.

**Starting Application**

**Backend**

* To run the backend, I recommend you to open the web.sln file in Visual Studio 2022.
* Backend ->Web->Web.sln
* Then we have to integrate our backend with database. To do so change database location at appsettings.json
* If You find Migration folder in Data layer I request you to delete it.
* Then Go to Tools->NugetPackage Manager console
* Enter following commands,  
  add-migration IntialCreate  
  update-database
* Then run the application
* Now our application backend will run at localhost:7144 port.

**Frontend**

* To run the Frontend part of the application, open frontend folder in Visual Studio code.
* Then in the terminal enter command “npm install” to install necessary packages.
* After installation, run “ng serve” command to run the application.
* Now our application frontend will run at localhost:4200

# Backend Explanation

* Backend consists of Four layers.   
  Web (controllers)  
  Business Logic (Services)  
  Data Access (Repositories)  
  Models (Entities)
* Web layer consists of all the controllers, where I created Auction controller, Product controller, User Controller, Bid controller.
* Business Logic layer consists of Interfaces and Classes of different services like User service, Product service, Bid service, Auction service.
* Data Access layer consists of Data connection and data repositories like User repository, Bid repository, Auction repository, Product repository.
* Models layer consists of all the Models that are necessary to the application.

# Frontend Explanation.

* Frontend consist of different folders like Components, Services and Auth guards.
* Components consist of necessary components like Home, Login, User-Home, Create-Auction, Add-product, Admin-Home, Bid.
* Services consists of different files like Auth services, User Service, Auction Service, Bid Service.
* Guards consists of different files like AuthGuard and Admin guard.

## Flow

* After running both backend and frontend we can explore the application as below.
* Navigate to the <https://localhost:4200>
* You will find all the auction in the Home page and Login button at top right corner click on it to login. From here you will be navigated to the login page
* In the login page enter necessary details to login those two form fields are required.  
  ex: user1@example.com,  
   password: User1Password
* If you want to close login page click on cross button.
* After Successful login you will be navigated to the User-home page. Where you can find Bids and Auctions you created. You will find all the Auctions where you can participate.
* On top you can find search bar, and different buttons, those buttons work accordingly.
* If you click on bid button of respected product you will be navigated to the Bid component,  
  here you can bid. You can bid amount greater than current highest bid.
* In the user-home page if you click on add-product button you will be navigated to the add-product page where you can find a form to add-product. all fields are required.
* Clicking on create-auction button navigate to the create-auction component. There you can find a form to add details and add products to the auction. After entering the necessary details and adding minimum one product you can create the auction.