

# Syllabus - Front end developer (Angular)

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## Program Highlights

- Learn tools and techniques used in industry: Git, cloud hosting, coding standards, and best practises followed by the industry.
- Industry experienced faculties
- Covers every aspect of UI/UX development
- Learn by doing: assignments for practising
- Step-by-step approach: students develop a part of the project while learning each topic.

## Industry Project

The features of the e-commerce project will be:

- Administrators can manage the whole application, approve or block resellers, remove customers if required, etc.
- Registration for customers and resellers.
- Login for customers and resellers
- Change password with OTP verification.
- Update profile
- Resellers can add, modify, or delete products.
- Customers can search for products using different criteria, such as the name of the product, category, etc
- The customer can buy or return the product.
- Resellers and admin will be able to pull different types of reports.

## Students will be able to work with companies that develop applications like:

- ERP application
- Accounting software
- Social media application
- Hotel booking application
- Train/Bus/Flight booking application/ Ticket reservation
- Job portals
- E commerce
- Matrimony application
- Learning Management System
- Hospital Information System

- College/School management system
- Doctor Booking
- Retail shop management
- Library Management System
- Internet banking
- Photo/Video sharing platforms
- Video conferencing application
- Content management system
- Portal web applications like Forums, chat, email, search engines etc.
- And many more...

Students can also opt for job roles in:

Digital marketing, Website development, game development etc

## Designations

- Junior Software Engineer
- Software Engineer
- Full stack developer
- Web Developer
- Back end developer
- Junior Python developer
- UI/UX developer
- Front end developer

## Certifications

Certification by Oray Education, London UK

## Course Overview

The goal of the Front end developer (Angular) course is to transform you into a professional front end developer. You will be able to develop an Angular application for Ecommerce hosted in a cloud server. You'll come to understand coding logic using popular languages and frameworks like Typescript & Angular, while learning how to think like a programmer by building software from the ground up.

## Course Structure

### Sprint 1: HTML

HTML and CSS: Creating Web Pages Using HTML and CSS  
Hosting a website

### Sprint 2: CSS and Bootstrap

Introduction to CSS, CSS grid layout, and Introduction to Bootstrap  
Bootstrap: Creating Responsive Web Pages Using Bootstrap

### Sprint 3: JavaScript and JQuery

Introduction to JavaScript, Document Object Model, Form Validation, Client-Side Applications  
Using JavaScript, Introduction to JQuery, JQuery AJAX, and JSON parsing in JavaScript

### Sprint 4: Programming using typescript

TypeScript: Using variables, data types, type assertions, arrow functions, object-oriented programming, getters, and setters  
Using the web browser for development: using the developer console, different types of browser storage, HTTP status codes.

### Sprint 5: Introduction to Angular

Basics of Angular: NodeJS and Angular installation; using Angular CLI commands; creating an Angular project  
Hosting: Heroku cloud server; connecting Git and Heroku; hosting an Angular application on heroku server application, enabling automatic deployment and CI/CD.  
Angular directives: types of angular directives: \*ngIf, \*ngFor, and \*ngSwitchCase

### Sprint 6: Angular fundamentals

Angular data and event binding: data binding (one way and two way), event binding, interpolation, property binding, attribute binding, class binding, style binding, and template variables.  
Angular decorators: class decorator, property decorator, method decorator, parameter decorator.  
Angular routing: routes, router modules, router outlets, named routes  
Reusable components; pipes; custom pipes; observables and promises; auth guard.

### Sprint 7: Angular material

Angular materials, using CSS in angular, material design bootstrapping Angular fx flex, SCSS/SAAS mixins, inheritance

### Sprint 8: Angular forms

Template-driven forms, reactive forms, form validation Custom validator, asynchronous validator

### Sprint 9: Communication between different components in an angular

Parent-child relationship: input properties, output properties, @view child, content projection

Non-related components: event emitters, subject, behaviour subject, replay subject

### Sprint 10: Angular services and API

Creating services, calling API (HTTP client module).

### Sprint 10: Advanced Concepts of Angular

Reusable components; pipes; custom pipes; observables and promises; auth guard TDD

Rxjs - separate module

Map, merge map, concat map, switch map

