1. Text

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   This course will make us master on OpenAPI Specification and Swagger Tools.
2. **What is OpenAPI Specification**?
   1. Standard that is majorly used by an industry to describe APIs.
3. If you’re in a scenario where you’re dealing with APIs on day-to-day basic, it is advisable you to master this OpenAPI specification so that you’re following the standards to describe your APIs.
4. So, this brings another question that why should we describe our APIs with the help of OpenAPI Specification?
   1. If you’re building a lot of APIs inside your organization, there is a good chance that these APIs may get consumed by other client applications or other organizations.  
      So, when you’re into these kinds of scenarios, definitely you will get a lot of questions from your consumer or QA team asking about
      1. What is the format of your request for your APIs?
      2. What is the format of your response for your APIs?
      3. What are the security requirements?
      4. What are the validations that you have inside your APIs?
5. You can’t explain about your APIs to the consumers and QA team all the time.  
   So instead by using OpenAPI Specification, you can describe your APIs.  
   Once you master the OpenAPI Specification, you can take the help from the **Swagger Tools** available to make your lives easy whenever you’re dealing with the APIs.
6. So, it is important to master OpenAPI Specification & Swagger tool if you’re dealing with APIs on day-to-day basis.
7. So, let me walk you through the agenda of this course.
   1. When entering into the OpenAPI Specification.
      1. What is OpenAPI?
      2. What problems is it trying to solve?
      3. Advantages when following OpenAPI Specification?
   2. When Clear about OpenAPI introduction, we will talk about
      1. History of OpenAPI and Swagger.  
         There is a lot of confusion in the industry about the relationship b/w the OpenAPI & Swagger.
   3. Then we will talk about various Swagger Tools.
      1. Swagger tools have both open-source tools and commercial tools.
      2. We will cover all of those tools.
      3. We can make our life very easy by making use of these Swagger Tools.
   4. When we’re done with Swagger tool, we will discuss how to get started with two kinds of scenarios.
      1. **Code First**: Where API Codes are already available, and you want to describe your APIs.
      2. **Design First**: You get a request from a client saying that you have to develop so and so APIs and you have to describe your APIs with the help of OpenAPI Specification before you start the development.
   5. Once we’re done with these concepts, then we will jump into the advanced topics like
      1. How to write a valid OpenAPI YAML document?
      2. In this process, we will be discussing the following supported by OpenAPI Specification.
         1. All the syntax.
         2. Fields/elements.
         3. Object
      3. How to write reusable content inside your open API document with the help of components object.
   6. So, once you’re clear about this reusable content inside OpenAPI with the help of components, we’re going to talk about
      1. Data Type Supported by OpenAPI & what are the scenarios to use them.  
         During the discussion, we will use them inside OpenAPI Specification Document and we’re going to do a lot of hands on.
   7. Once we are done with the above, we’re going to discuss super complex topics.
      1. **Inheritance** & **Polymorphism** so that you’re following good standards and best practices when you’re defining the OpenAPI Specifications and by the time we’re done with these topics, we will become master of OpenAPI Specification.
   8. But we will stop there. We will continue the other interesting topics like
      1. how to describe your API Security with the help of OpenAPI Specification.
      2. How to mock APIs with OpenAPI Specification.  
         Once we mock an API, producer and consumer can start their development by consuming this mocked API.
      3. How to generate Client Code & Server Stubs using OpenAPI.  
         This is advantage when you define your APIs with OpenAPI Specification that you don’t have to write the initial skeleton code for your APIs.  
         Whether you a consumer or a producer, you can generate code within a few seconds and as a developer you have to write the actual business logic and everything else is taken care by the code that we generated with the help of Swagger Tools.
      4. After code generation, we are going to see how to deploy and host our **API Specification Document** so that all our consumers can go to that website and see the latest API URLs to refer to on day-to-day basis.
8. Graphical user interface, text

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