Hello everyone myself Ashweta Anand Fondekar from Parvatibai Chowgule College of Arts and Science Autonomous Margao Goa.
In Unit 2 that is activities and user interface, you will study, Module Name: Intents uses, intent types (Implicit & Explicit), passing data(Direct, Bundle & Parcelable). This is the outline of the presentation.
After learning this module,students will be able to explain the concept of intent in Android.
Then we'll able to identify an use different types of intent in their Android application and also be able to pass data from one activity to another activity or to other component of Android application.
Now let us see what is mean by intent.

Android intent is the message that is passed between component, such as activities, content provider, broadcasts receivers, services, Etc.
Intent are the object which is used in Android for passing the information among activities in an Android application and from one app to another also. Intent are used for communicating between the Application components and it also provides the connectivity between two apps.
There are two activities, so when you want to navigate from one activity to another activity and when you want to pass data from one activity to another activity intent is used.
Let us see now users of intent.

- To Start the service.
- To Launch an activity.
- To Display a web page.
- To Display a list of contacts.
- To Broadcast a message.
- To Dial a phone call etc.

There are many more uses of intent. Now we'll see different types of intent.
Android support, explicit and implicit intents. Now we'll see explicit intent in detail.
Explicit Intents are used to connect the application internally. In Explicit we use the name of component which will be affected by Intent.
For Example: If we know class name then we can navigate the app from One Activity to another activity using Intent. So when we want to navigate from one activity to another activity and if other activity class name is known, then in explicit intent we specify source activity name and target activity name. So here activity is one of the component of the Android application.
In the similar way we can start a service to download a file in background process. So here is a syntax of explicit intent.
You can see there is an intent and this is intent object and we are writing source activity name.
So here using get application context source activity name can be specified.
So then here Second, activity name that is second activity.class and then it is passed using start activity.
In this we pass intent object, so then we'll see implicit intent. In Implicit Intents we do not need to specify

the name of the component. We just specify the Action which has to be performed and further this action is handled by the component of another application.

So as the way we specify component name, target component name in implicit intent, here we don't specify the component name, that is the difference between explicit and implicit intent. The basic example of implicit Intent is to open any web page So here is the example. The code is given where we create intent object. OK, then here we just specify the action which we want to perform and we don't specify Component name. Here then we also we specify URL name. so action is to view this web page. Then again we pass this intent object using start activity.Now let us see how to pass data from one activity to another activity or from one activity to another component of applications.

Intent supports three ways to pass data.

So three ways are: Direct, Bundle, and Parcelable. In Direct we put our data into intents directly.

In Bundle: create a bundle and set the data here. Parcelable: It is a way of “serializing” our object.

To analyse these methods let’s suppose we have two activities: one that allows user to enter data (*EditActivity*).So using (*EditActivity*) activity, User is going to enter the data and the other one that shows to the user the data and the data will is this will be displayed on another activity that is (*ViewActivity*). We have to pass this data between our activities. Consider we want to pass the name, surname and the email. Now how to pass data using direct method that we will see in detail.

Intent has several method called *putExtra* that allows us to save inside the Intent our information. It behaves like a Map where there’s the key and the value. In the caller (*EditActivity*) we can pass data in this code:

So again, we create intent object that is intent i. i is a intent object. Then this is explicit intent where we write source and activity name and target activity name.Then using put extra method, we pass key an its value. See here, that is a key name. And then here's the value, then same way we pass surname, then email and then intent his passed using start activity. In destination activity to retrive this sent data we have to write this code where you can see again to get the intent, We create object and create variables and we retrive the information to display it on 2nd activity using Getstring, extra method. Then there is a bundle.

Android has a class called Bundle where we can store our data and support several data types like string char, boolean, integer and so on. Instead using the intent as data container we store our information directly into bundle and then we save the bundle into the intent. So here what we do we don't save our data into intent rather than we use bundle. So your bundle object is created OK, and then we put data into bundle using put string. OK this is the object b.put string and we'd put data surname data that is surname, email in bundle and then later on we pass this bundle using in intent object. So in destination activity again we have to write code to get the intent. Then we get bundle. We create bundle object and get the bundle. And then we store each data that this name surname in variable. you can see Here string variable that is a name, surname is created to store this data.

Then third method to use send the data from one activity to other component of application. That is Parcelable. Parcelable in android is an interface and every object that wants to be passed across different activities using intent has to implement this interface. It is something like Serializable in Java. This interface has two method that we have to implements: describeContent() that returns an int and writeToParcel(Parcel dest, int flags) that returns a void.

More over a class that implements this interface must have a static field called CREATOR that is used by the OS to recreate the object.

So these other steps to implement the Parcelable method. So first you have to create a class and then implement Parcelable interface. Then define overloaded constructor for a class which has Parcelable as an argument. Then implement following methods that is. First you override describe content method then override writeToParcel methods and create a non-null static field called creator. So this is the example where Parcelable method is used. You can see, Parcelable method is implemented to person class. Then Here you can see you have declared strings OK, then you have you overloaded constructor then you have overridden describe content method and writeToParcel method and you have used creator then you need to write this code in your main activity.Java that is a source activity. So here you can see you have Created object of person class and then passing name then first name last name and qualification and then in turn that object is passed using intent and in second activity again to get intent you need to write code that is you can see here get intend to get the string. So here this string message is you can see here it is you can display it using get string extra. And then you said this text using set text. Then again you create object an get the intent and display first name, last name and qualification. So these are the references which we all can refer.

Thank you.