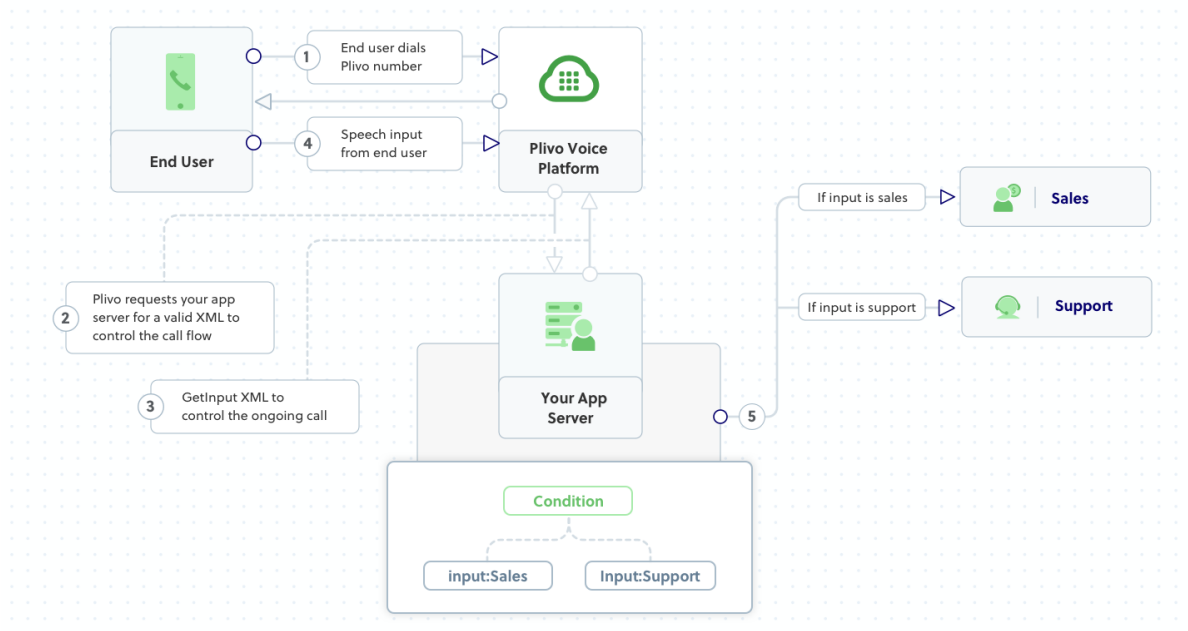


Voice recognition Project



```
package com.example.VirtualAssistant;

//importation
import com.plivo.api.exceptions.PlivoValidationException;
import com.plivo.api.exceptions.PlivoXmlException;
import com.plivo.api.xml.*;
import com.plivo.api.xml.Number;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.web.bind.annotation.*;
import javax.servlet.http.HttpServletRequest;

@SpringBootApplication
//used for auto-configuration and is equivalent to using @Configuration, @EnableAutoConfiguration, and @ComponentScan

@RestController
//combination of the @controller and @ResponseBody annotation
//allows the class to handle the requests made by the client
//It converts the response to JSON or XML

public class VirtualAssistantApplication {
    public static void main(final String[] args) {
        SpringApplication.run(VirtualAssistantApplication.class, args);
    }
    //SpringApplication.run(Classname.class, args) bootstraps a spring application as a stand-alone application from the main method.
    //It creates an appropriate ApplicationContext instance and load beans

    String welcomeMessage = "Welcome to the demo app, Say Sales to talk to our Sales representative. Say Support to talk to our Support re
    // Welcome message - firstbranch

    String noInput = "Sorry, I didn't catch that. Please hangup and try again later.";
    // This is the message that Plivo reads when the caller does nothing at all

    String wrongInput = "Sorry, it's a wrong input.";
    // This is the message that Plivo reads when the caller inputs a wrong digit.

    @GetMapping(value = "/virtual_assistant/", produces = {"application/xml"})
    //a specialized version of @RequestMapping annotation that acts as a shortcut for @RequestMapping(method = RequestMethod.GET)
    //handles the HTTP GET requests matched with given URI expression.
    )

    //XML request
    //When Plivo makes a synchronous HTTP request to your application, the API expects an XML document in response.
    //Plivo sends a few parameters with the HTTP request that your application can act upon before responding.

    //The throw keyword in Java is used to explicitly throw an exception from a method or any block of code.
    public Response getInput(HttpServletRequest request) throws PlivoXmlException, PlivoValidationException {
```

```

String hostName = request.getRequestURL().toString();
//The function getRequestURI() returns the complete requested URI.

final Response response = new Response().children(
//.children() method allows us to search through the children of these elements in the DOM

    new GetInput().action(hostName + "firstbranch/").method("POST")
    //the GetInput XML element is used to collect user input through automatic speech recognition
    //the action attribute means that : The input is sent to a specific URL
    //the method attribute means that : The HTTP method to use when invoking the action

//????????????????????????????????????????
    .interimSpeechResultsCallback(hostName + "firstbranch/")
    .interimSpeechResultsCallbackMethod("POST").inputType("speech").redirect(true)
    .children(new Speak(welcomeMessage)))
    .children(new Speak(noInput));
System.out.println(response.toXmlString());
//The ToXmlString method creates an XML string
return response;
}

```