

You

I'm trying to create a java application in replit that can record speech from my microhone as input and then convert it to text using Google Cloud speech libraries. I have the following in my replit: compile =

```
"javac -classpath .:libs/* -d . $(find . -type f -name '*.java')"
```

```
run = "java -classpath .:libs/* Main"
```

```
entrypoint = "src/main/java/SpeechToTextApp.java"
```

```
hidden = ["**/*.class"]
```

```
[packager] language = "java"
```

```
[packager.features] packageSearch = true
```

```
[languages.java] pattern = "**/*.java"
```

```
[languages.java.languageServer] start = "jdt-language-server"
```

```
[unitTest] language = "java"
```

```
[nix] channel = "stable-22_11"
```

```
[debugger] support = true
```

```
[debugger.compile] command = "javac -classpath .:libs/* -g -d . $(find . -type f -name '*.java')"
```

```
[debugger.interactive] transport = "localhost:0"
```

```
connectTimeout = 60 startCommand = "java-debug"
```

```
[debugger.interactive.initializeMessage] command = "initialize" type = "request"
```

```
[debugger.interactive.initializeMessage.arguments] adapterID = "cppdbg"
```

```
clientID = "replit" clientName = "replit.com"
```

```
columnsStartAt1 = true linesStartAt1 = true
```

```
locale = "en-us" pathFormat = "path"
```

```
supportsInvalidatedEvent = true supportsProgressReporting = true
```

```
supportsRunInTerminalRequest = true supportsVariablePaging = true supportsVariableType = true
```

```
[debugger.interactive.launchMessage] command = "launch" type = "request"
```

```
[debugger.interactive.launchMessage.arguments] classPaths = ["."] mainClass = "Main"
```

```
[deployment] build = [ "javac", "-classpath", ".:libs/*", "-d", ".", "$(find . -type f -name '*.java')", ]
```

```
run = ["java", "-classpath", ".:libs/*", "Main"] deploymentTarget = "cloudrun"
```

libs contains the following files:

google-cloud-speech-4.43.0-javadoc.jar, protobuf-java-4.28.0-RC3-javadoc.jar

This is my java code:

```
import com.google.cloud.speech.v1.*;
import com.google.protobuf.ByteString;
import javax.sound.sampled.*;
import java.io.ByteArrayOutputStream;
import java.util.List;
```

```
public class SpeechToTextApp {
    public static void main(String[] args) throws Exception {
        try (SpeechClient speechClient = SpeechClient.create()) {
            AudioFormat format = new AudioFormat(16000, 16, 1, true, true);
```

```

DataLine.Info info = new DataLine.Info(TargetDataLine.class, format);
TargetDataLine microphone = (TargetDataLine) AudioSystem.getLine(info);
microphone.open(format);
microphone.start();

ByteArrayOutputStream out = new ByteArrayOutputStream();
byte[] buffer = new byte[1024];
while (true) {
    int bytesRead = microphone.read(buffer, 0, buffer.length);
    out.write(buffer, 0, bytesRead);

    ByteString audioBytes = ByteString.copyFrom(out.toByteArray());
    RecognitionConfig config = RecognitionConfig.newBuilder()
        .setEncoding(RecognitionConfig.AudioEncoding.LINEAR16)
        .setSampleRateHertz(16000)
        .setLanguageCode("en-US") .build();

    RecognitionAudio audio =
        RecognitionAudio.newBuilder().setContent(audioBytes).build();
    RecognizeResponse response = speechClient.recognize(config, audio);
    List<SpeechRecognitionResult> results = response.getResultsList();

    for (SpeechRecognitionResult result : results) {
        SpeechRecognitionAlternative alternative =
            result.getAlternativesList().get(0);
        System.out.printf("Transcript: %s%n", alternative.getTranscript());
    }
}
}
}
}
}

```

I'm still getting this error after troubleshooting:

```
./src/main/java/SpeechToTextApp.java:2: error:
```

```
package com.google.protobuf does not exist
```

```
import com.google.protobuf.ByteString;
```

```
^
```

```
./src/main/java/SpeechToTextApp.java:1: error:
```

```
package com.google.cloud.speech.v1 does not exist
```

```
... (more errors) 15 errors
```

Copilot

It looks like the issue is related to missing dependencies for the Google Cloud Speech and Protobuf libraries. Here are a few steps to help you resolve this:

1. **Add the correct dependencies:** Ensure you have the correct JAR files for the Google Cloud Speech and Protobuf libraries. You can download them from the Maven repository.
2. **Update your replit.nix file:** Make sure your replit.nix file includes the necessary dependencies. Here's an example of how you can modify it:

Nix

```
{ pkgs }: {  
  deps = [  
    pkgs.openjdk  
    pkgs.maven  
  ];  
}
```

3. **Add the dependencies to your pom.xml:** If you're using Maven, you can add the dependencies directly to your pom.xml file. Here's an example:

Xml

```
<dependencies>  
  <dependency>  
    <groupId>com.google.cloud</groupId>  
    <artifactId>google-cloud-speech</artifactId>  
    <version>4.43.0</version>  
  </dependency>  
  <dependency>  
    <groupId>com.google.protobuf</groupId>  
    <artifactId>protobuf-java</artifactId>  
    <version>4.28.0-RC3</version>  
  </dependency>  
</dependencies>
```

4. **Ensure the JAR files are in the correct directory:** Make sure the JAR files are placed in the `libs` directory as specified in your `replit.nix` file.
5. **Rebuild your project:** After updating the dependencies, rebuild your project to ensure all the necessary libraries are included.

Here's a simplified version of your `replit.nix` file with the necessary dependencies:

Nix

```
{ pkgs }: {  
  deps = [  
    pkgs.openjdk  
    pkgs.maven  
  ];  
}
```

And your `pom.xml` should include:


```

<groupId>com.example</groupId>

<artifactId>speech-to-text</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

  <dependency>

    <groupId>com.google.cloud</groupId>

    <artifactId>google-cloud-speech</artifactId>

    <version>4.43.0</version>

  </dependency>

  <dependency>

    <groupId>com.google.protobuf</groupId>

    <artifactId>protobuf-java</artifactId>

    <version>4.28.0-RC3</version>

  </dependency>

</dependencies>

</project>

```

4. Compile and Run Your Project:

- Use the following commands to compile and run your project:

Bash

```
mvn compile
```

```
mvn exec:java -Dexec.mainClass="SpeechToTextApp"
```

Example Code

Here's a simplified version of your Java code to ensure it works with the Google Cloud Speech libraries:

Java

```
import com.google.cloud.speech.v1.*;
import com.google.protobuf.ByteString;
```

```
import javax.sound.sampled.*;
import java.io.ByteArrayOutputStream;
import java.util.List;
```

```
public class SpeechToTextApp {

    public static void main(String[] args) throws Exception {
```



```

try (SpeechClient speechClient = SpeechClient.create()) {

    AudioFormat format = new AudioFormat(16000, 16, 1, true, true);

    DataLine.Info info = new DataLine.Info(TargetDataLine.class, format);

    TargetDataLine microphone = (TargetDataLine) AudioSystem.getLine(info);

    microphone.open(format);

    microphone.start();


    ByteArrayOutputStream out = new ByteArrayOutputStream();

    byte[] buffer = new byte[1024];

    while (true) {

        int bytesRead = microphone.read(buffer, 0, buffer.length);

        out.write(buffer, 0, bytesRead);


        ByteString audioBytes = ByteString.copyFrom(out.toByteArray());

        RecognitionConfig config = RecognitionConfig.newBuilder()

            .setEncoding(RecognitionConfig.AudioEncoding.LINEAR16)

            .setSampleRateHertz(16000)

            .setLanguageCode("en-US")

            .build();

        RecognitionAudio audio = RecognitionAudio.newBuilder().setContent(audioBytes).build();

        RecognizeResponse response = speechClient.recognize(config, audio);

        List<SpeechRecognitionResult> results = response.getResultsList();


        for (SpeechRecognitionResult result : results) {

            SpeechRecognitionAlternative alternative = result.getAlternativesList().get(0);

            System.out.printf("Transcript: %s%n", alternative.getTranscript());

        }

    }

}

```

Additional Resources

For more detailed instructions, you can refer to the [Google Cloud Speech-to-Text documentation](#)

If you still encounter issues, please let me know!

Learn more: 1. [cloud.google.com](#) 2. [cloud.google.com](#) 3. [github.com](#) 4. [cloud.google.com](#) 5. [cloud.google.com](#)
6. [cloud.google.com](#) 7. [github.com](#) 8. [github.com](#) 9. [github.com](#) 10. [github.com](#)

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