**Build a Watson powered mobile chatbot**

**Do you want to build a chatbot? Whether you're a developer looking to create your own or a business looking to implement one without building from scratch, Watson can help!**

Build a Watson powered speech synthesizer mobile chat bot using Mobile Services, Watson Conversation and Text to Speech in IBM Bluemix.

[IBM® Bluemix™](https://console.ng.bluemix.net/)is the Platform as a Service(PaaS) cloud offering from IBM. It enables organizations and developers to quickly and easily create, deploy, and manage applications on the cloud. Bluemix delivers enterprise-level services that can easily integrate with your cloud applications without you needing to know how to install or configure them.

[Watson](https://www.ibm.com/watson/) is a cognitive system enabling a new partnership between people and computers. It can understand all forms of data, interact naturally with people, and learn and reason, at scale. Watson is available as a set of open APIs and SaaS products.

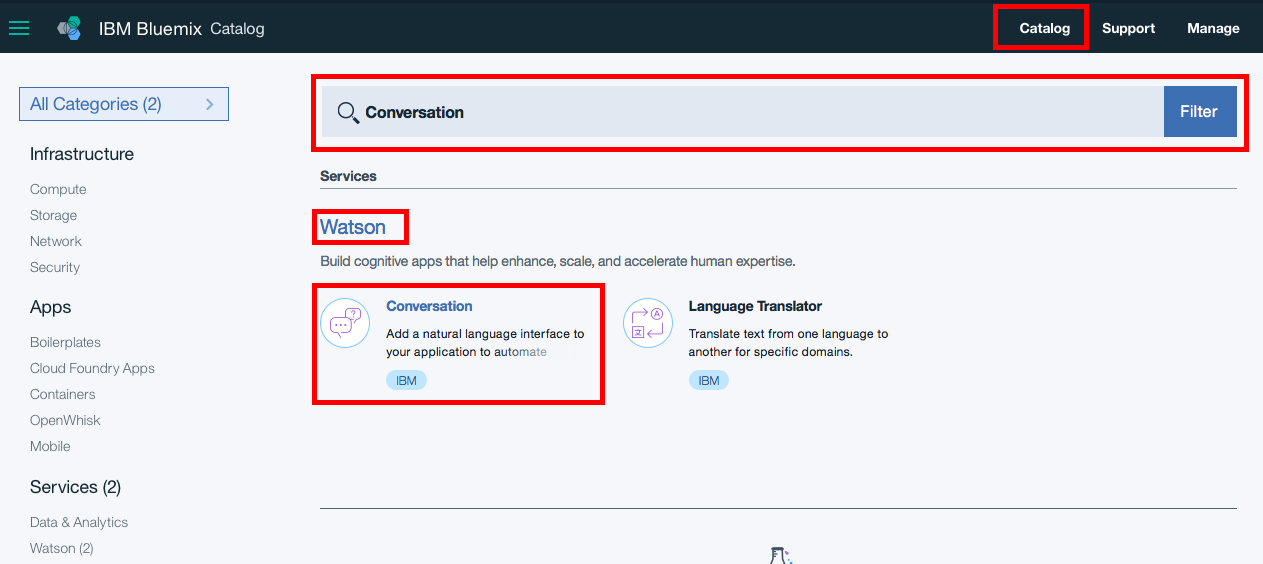
[Watson Conversation](https://www.ibm.com/watson/developercloud/conversation.html) allows you to quickly build, test and deploy a bot or virtual agent across mobile devices, messaging platforms like Slack or even on a physical robot. Conversation has a visual dialog builder to help you create natural conversations between your apps and users, without any coding experience required.

[Text to Speech](https://www.ibm.com/watson/developercloud/text-to-speech.html) converts written text into natural sounding audio in a variety of languages and voices. You can customize and control the pronunciation of specific words to deliver a seamless voice interaction that caters to your audience.The service augments SSML with an <express-as> element that you can use to indicate how text is to be expressed when spoken (as good news, as an apology, or with uncertainty). The service currently supports expressiveness for the US English Allison voice.

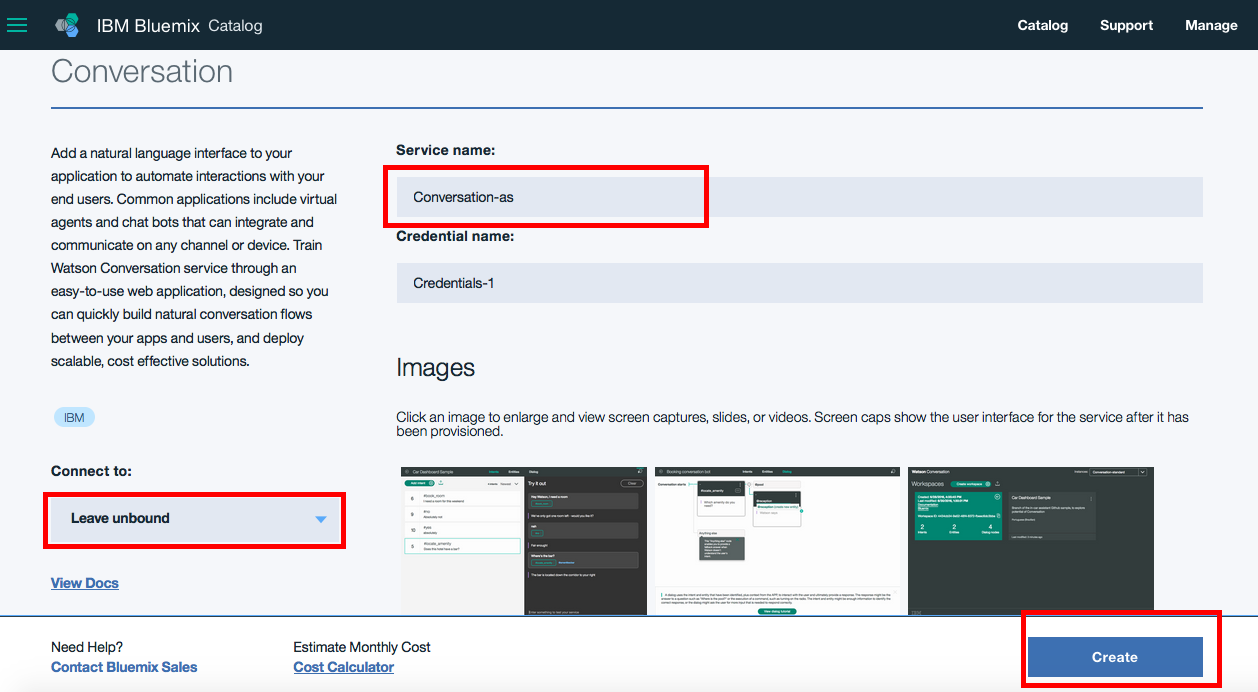
To build this chat bot you will have to configure Watson Conversation Service, Text to Speech in IBM Bluemix and export starter code from IBM Bluemix to Android Studio.

**CONFIGURE WATSON CONVERSATION SERVICE:**

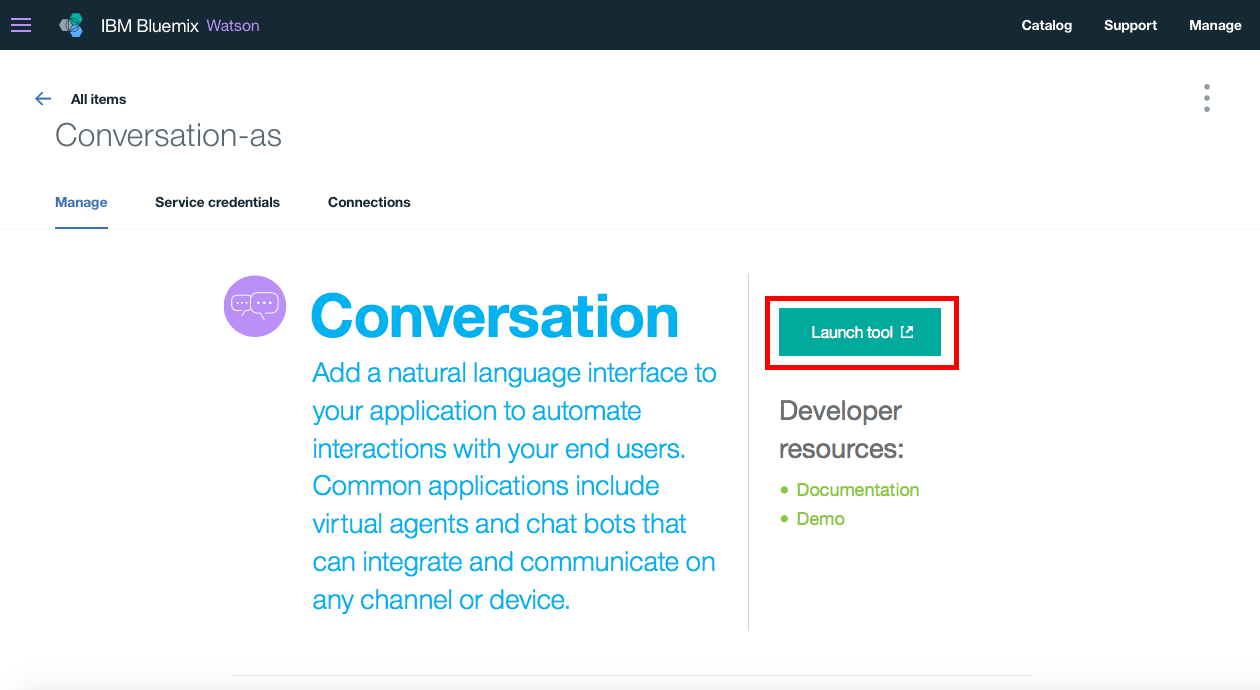
Log in to [www.bluemix.net](http://www.bluemix.net) and click on **CATALOG** to CREATE and Configure Watson Conversation Service



Enter Service name (or leave it as default) and then click on **CREATE.** Please note that I have left it as UNBOUND (You can either leave it as unbound or bind it to an APP that you have created on Bluemix)



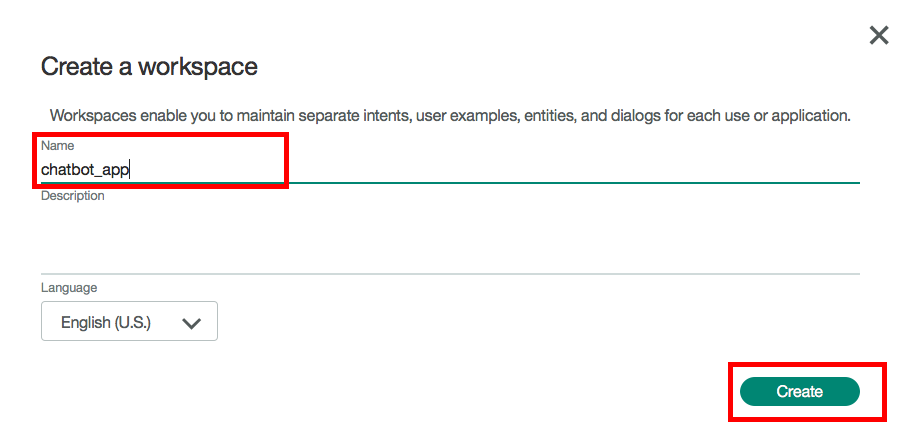
Click on Launch Tool to open the Watson Conversation Service Tool

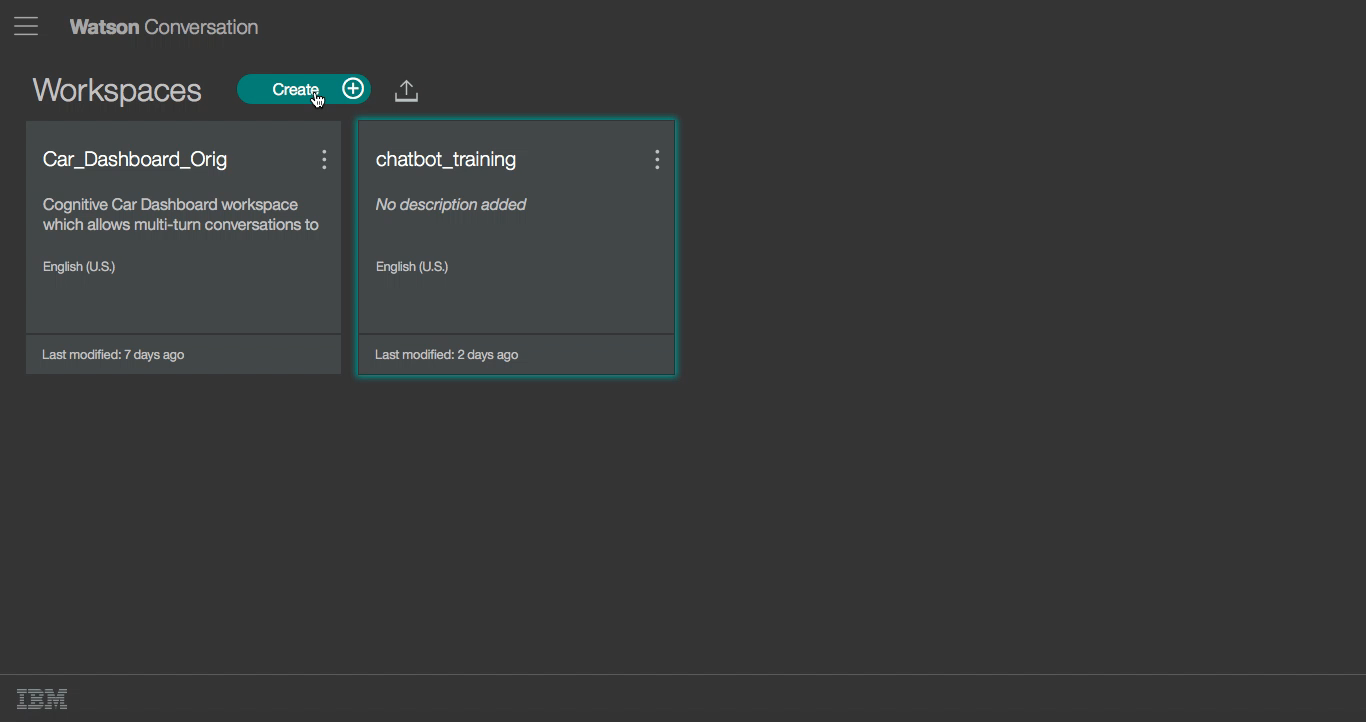


In Workspaces, click on CREATE to create a new workspace.



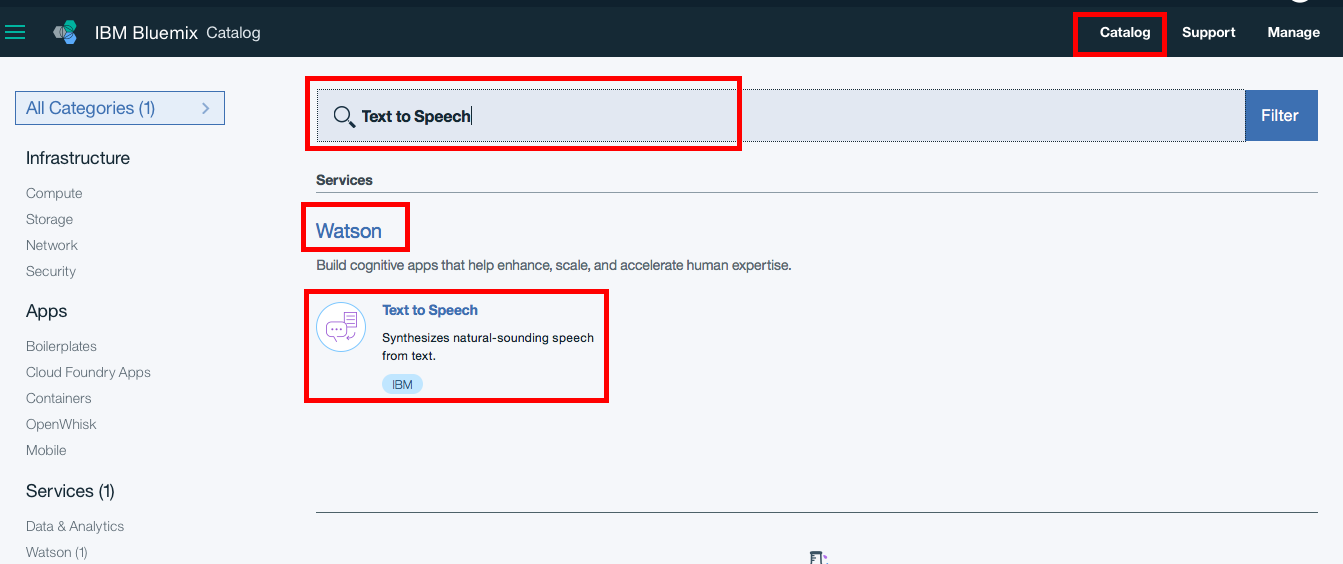
Enter name and click on **Create**



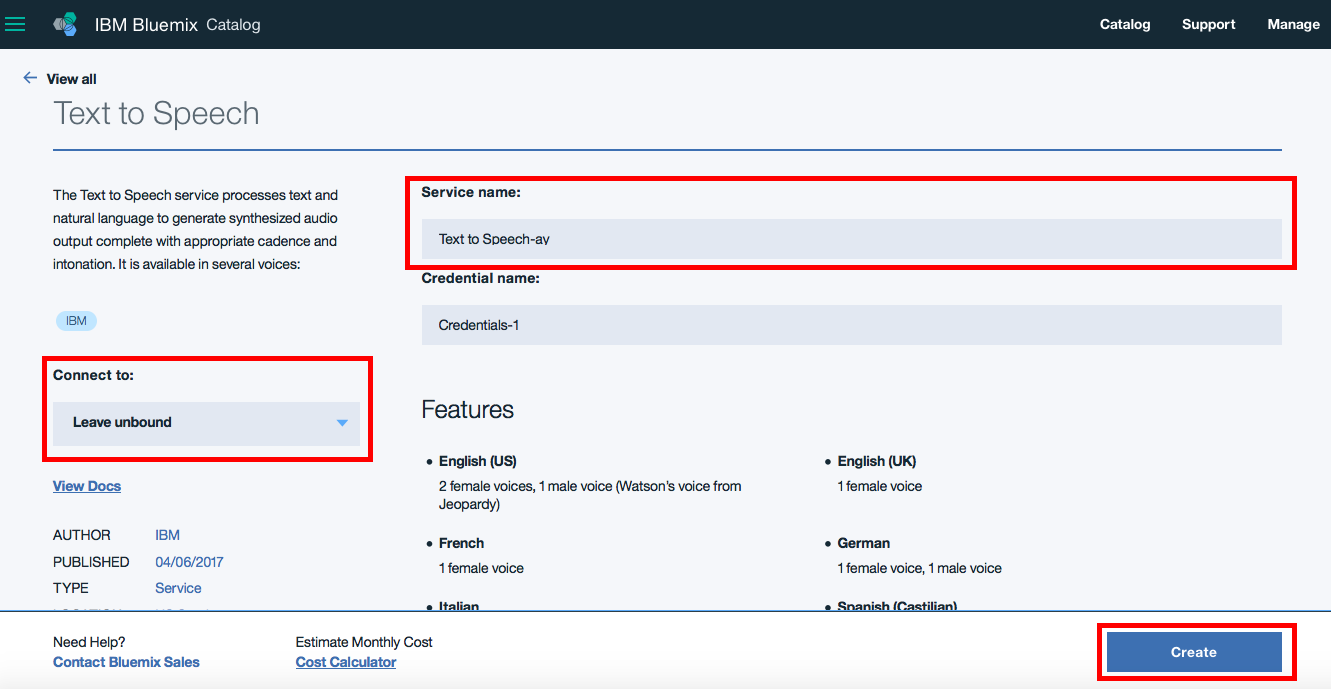
Check the video below to create workspace, intents, entities and dialogs:

**CONFIGURE TEXT TO SPEECH SERVICE:**

Click on **CATALOG** to CREATE and Configure **Text to Speech** service

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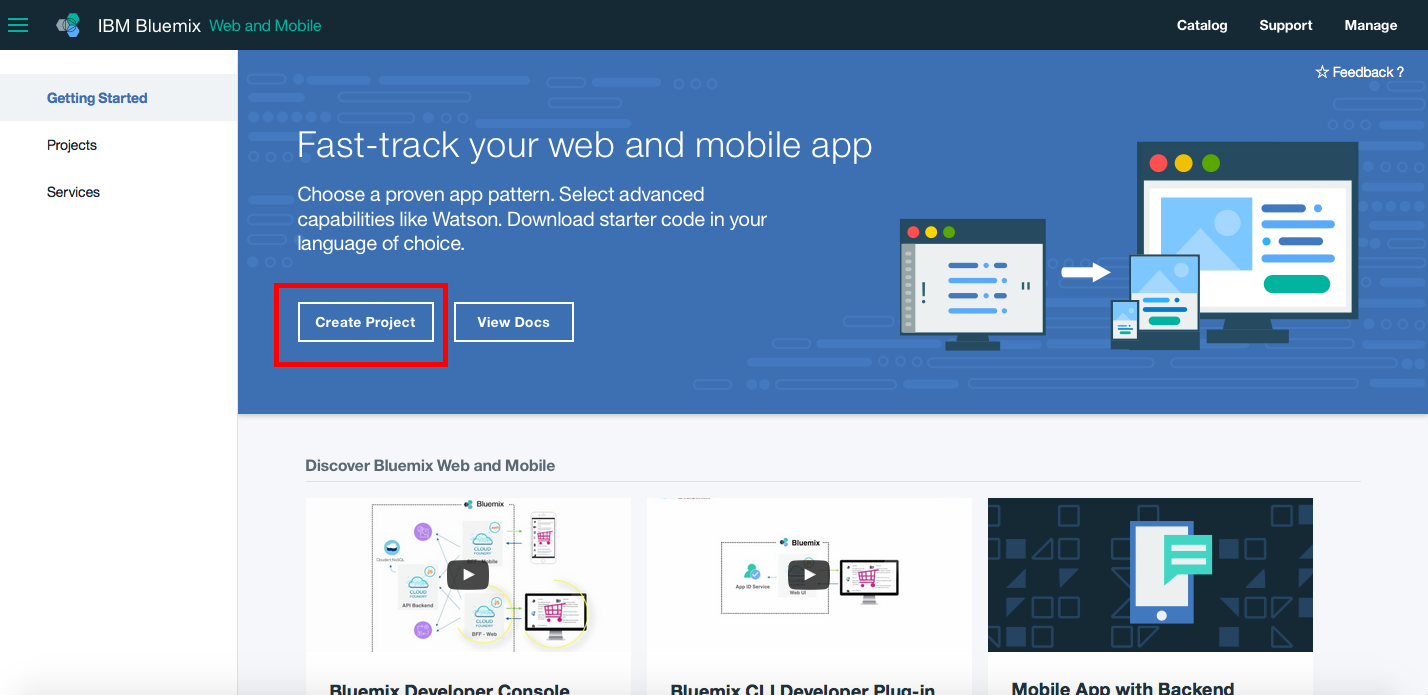
Enter Service name (or leave it as default) and then click on **CREATE.**

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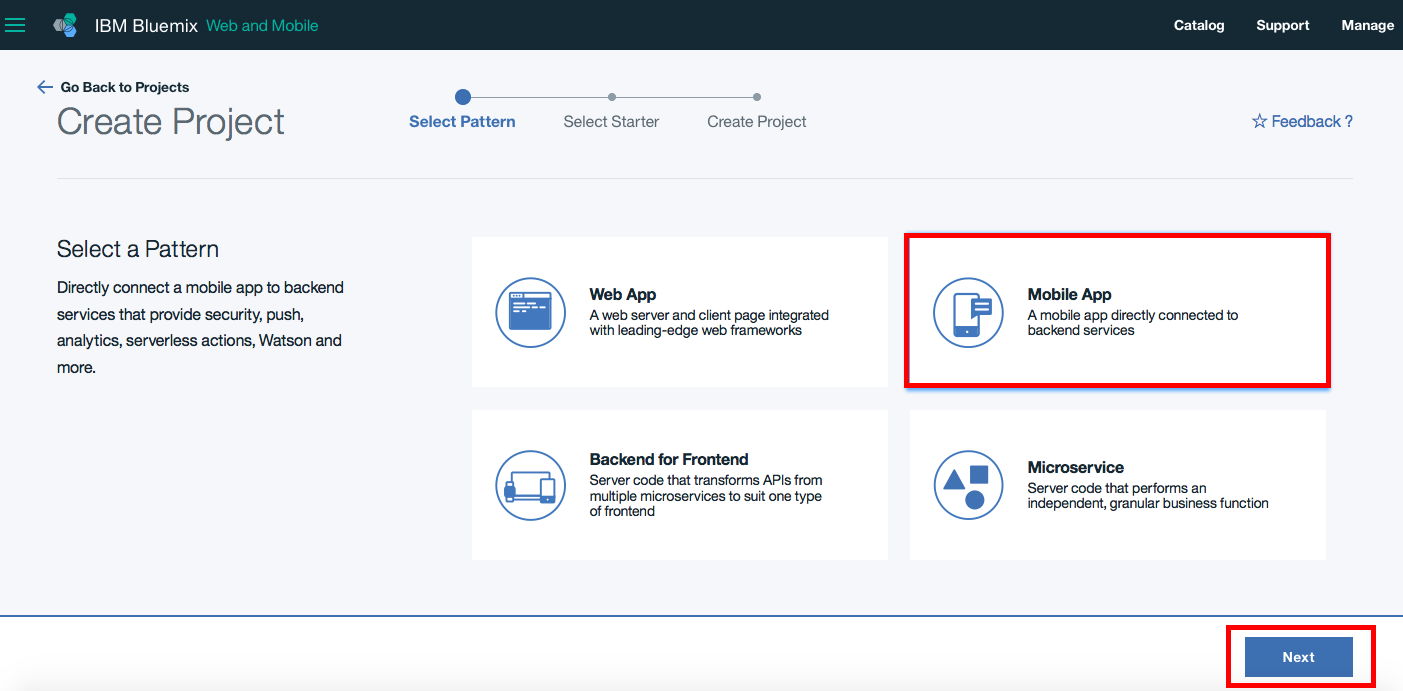
**CONFIGURE MOBILE SERVICES:**

Step 1: Go to URL <https://console.ng.bluemix.net/developer/getting-started/>

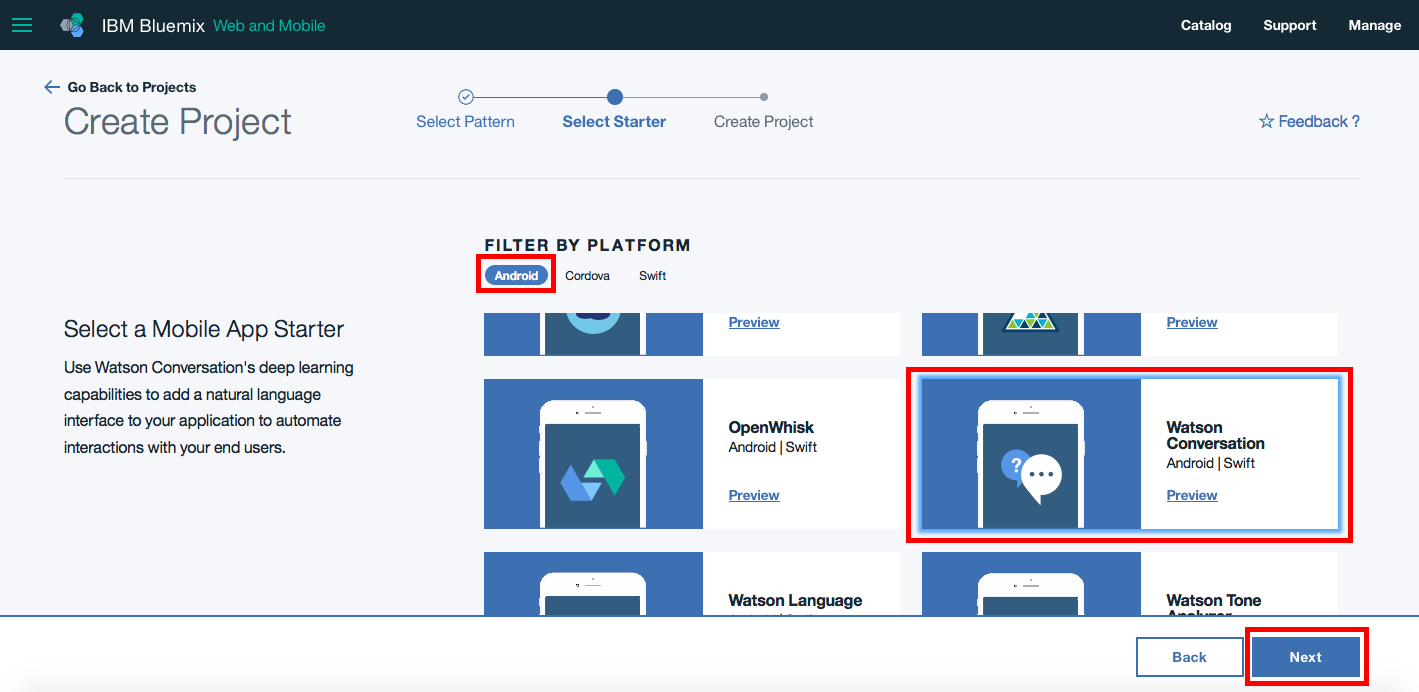
CLICK ON **CREATE PROJECT**



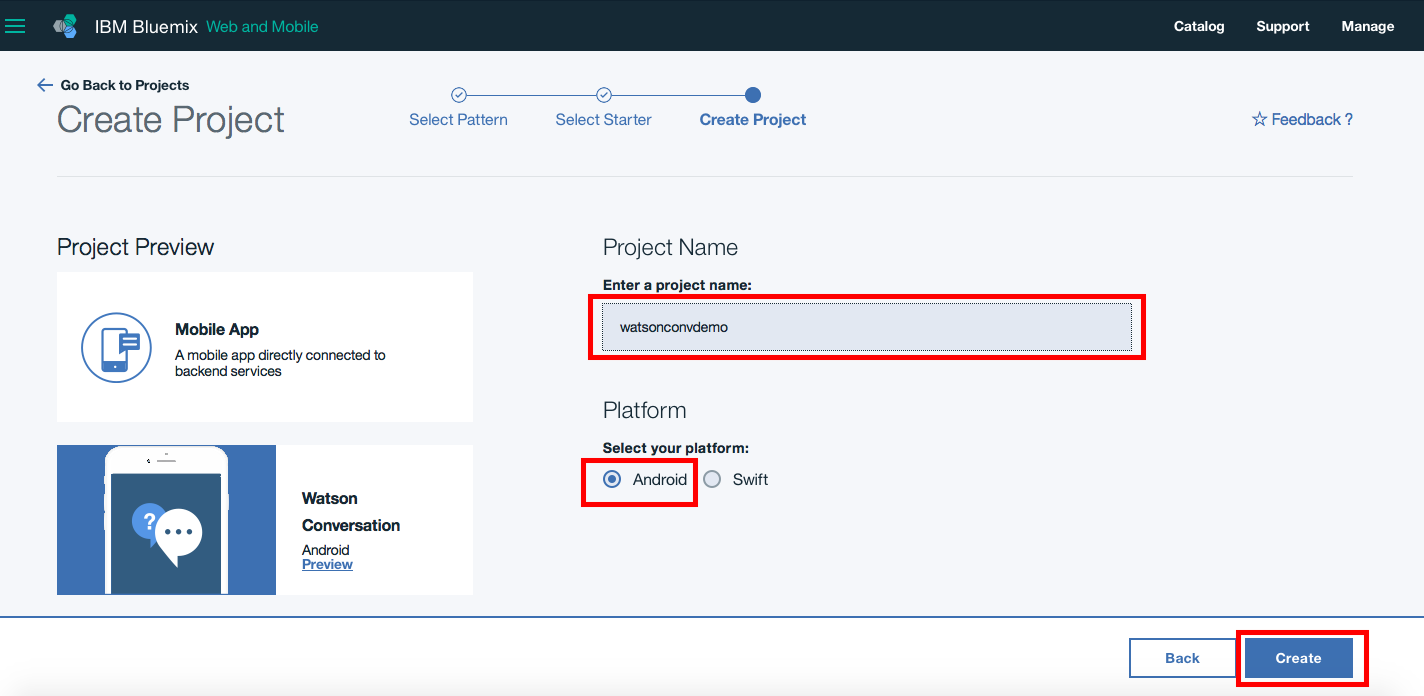
Step 2: Click on **MOBILE APP** and Click on **NEXT**



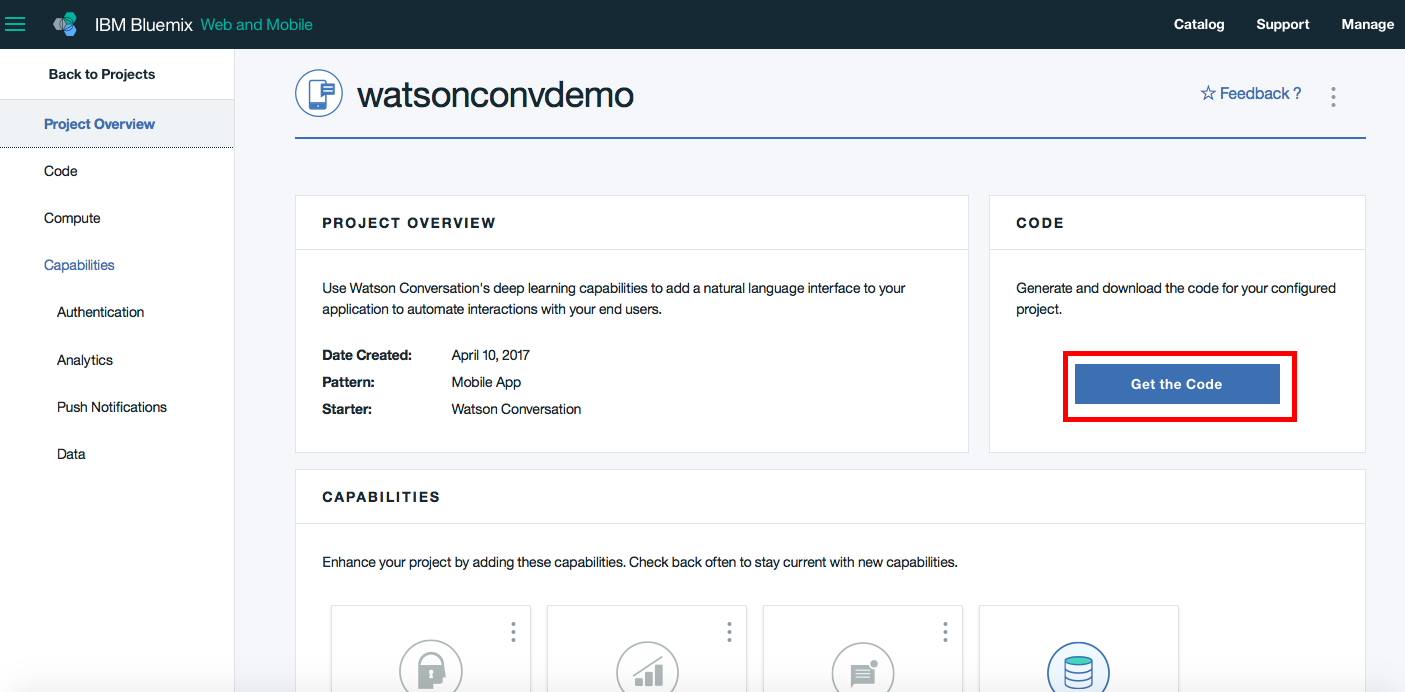
Step 3: Filter by **ANDROID** and then click on **Watson Conversation** and Click on **NEXT**



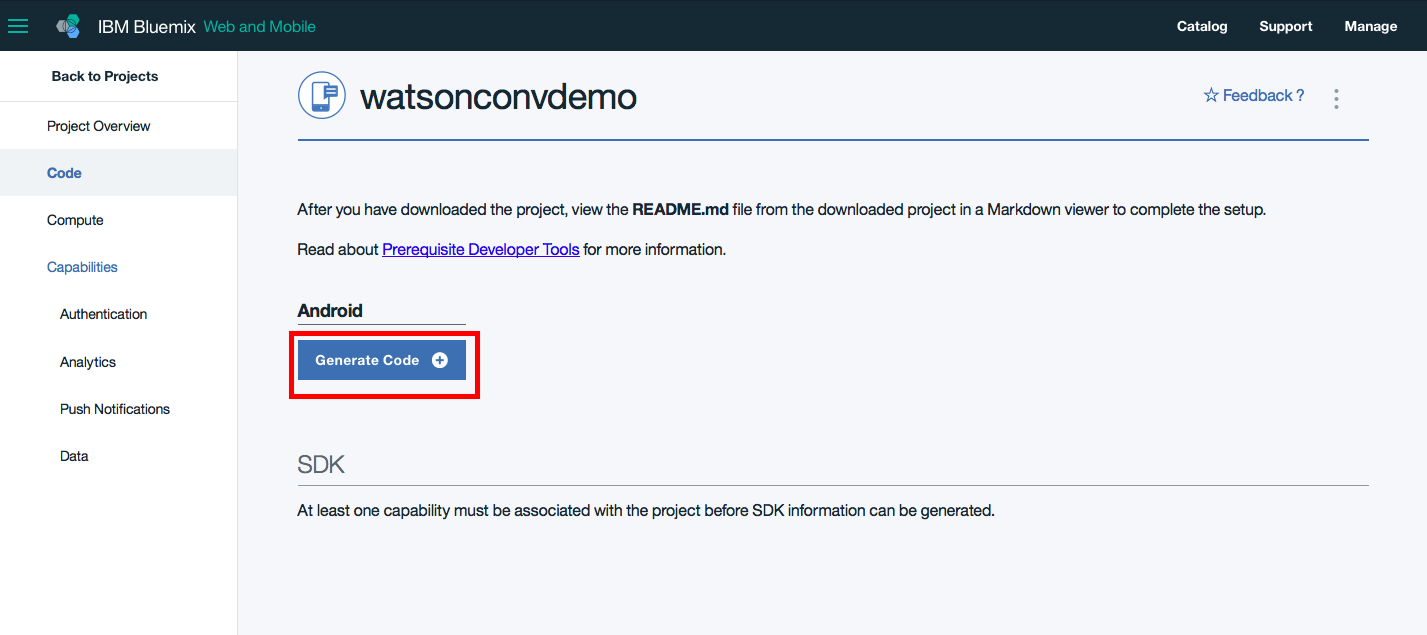
Step 4: Enter **Project Name** and Select platform as **Android** and click on **CREATE**



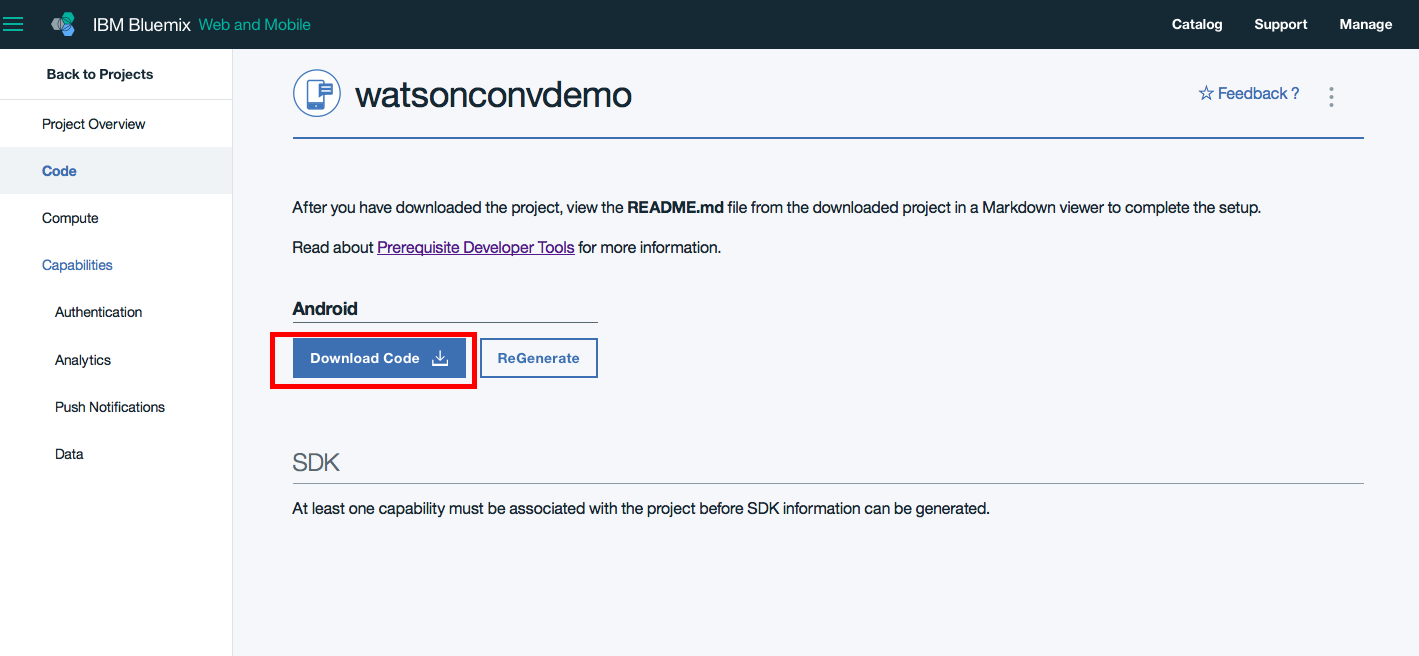
Step 5: Click on **Get the Code**



Step 6: Click on **Generate Code**



Step 7: **Download the generated code.**



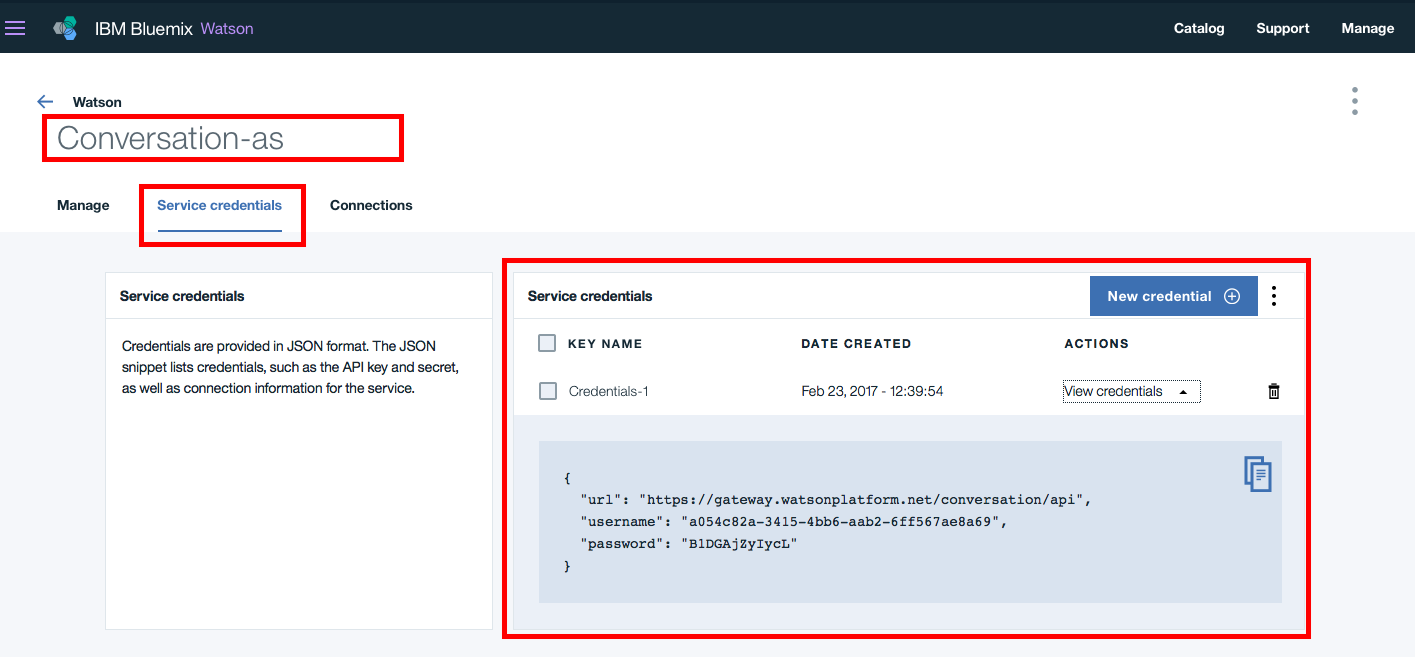
Step 8: **Unzip** the generated code and then Import it into Android Studio (any latest version of Android Studio)

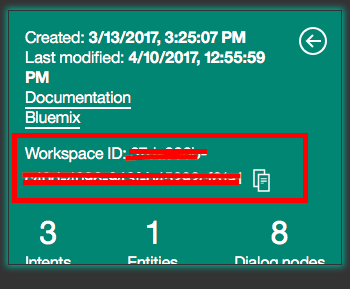
Step 9: In the build.gradle(app), insert dependency

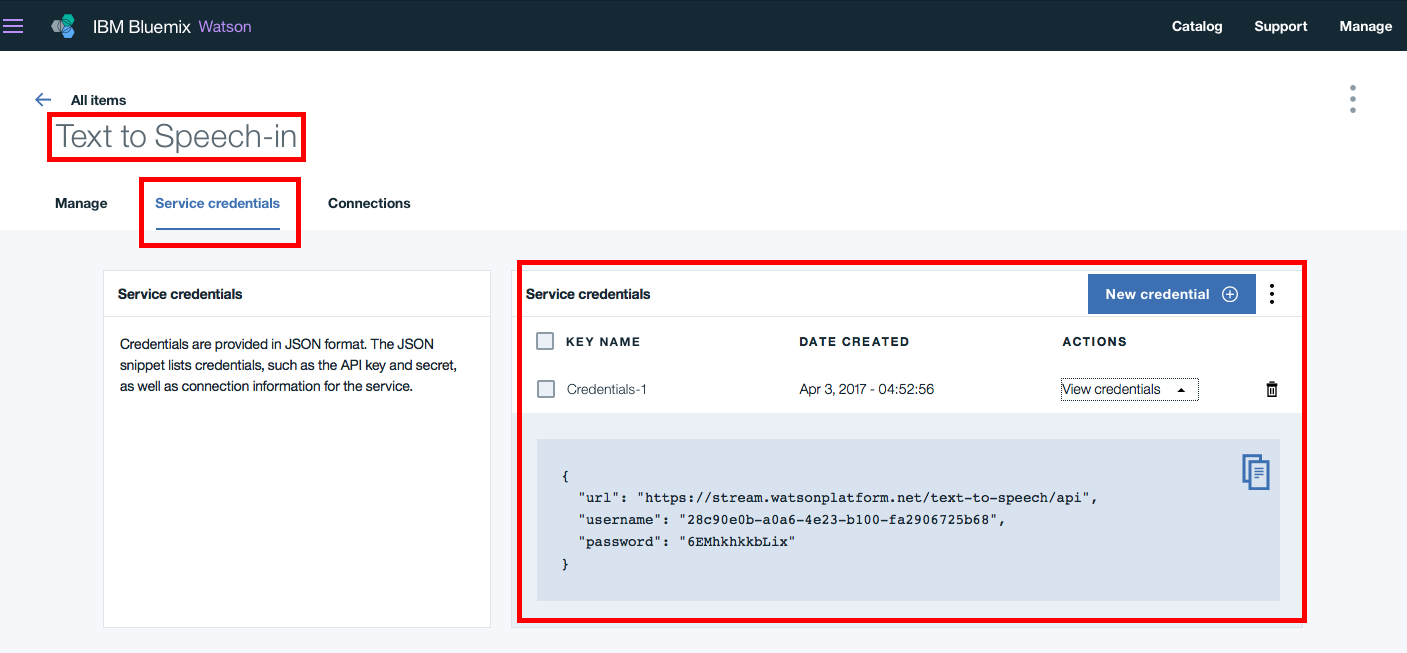
compile **'com.ibm.watson.developer\_cloud:android-sdk:0.2.3'**

Step 10: In res>values>watson\_credentials.xml enter the Watson Conversation password, Username, Workspace ID and insert last two lines with Text to Speech Username & Password. Go to Bluemix Dashboard and open Watson Conversation Service & Text to Speech Service to get the Username and password! (as shown below)

<**resources**>  
<**string name="watson\_conversation\_password"**>XXXXXXXXX</**string**>  
<**string name="watson\_conversation\_username"**>XXXXXXXXXXXXXxxxxxxxxxxxxxxxx</**string**>  
<**string name="watson\_conversation\_workspace\_id"**>XXXXXXXXXXXXXXXXXXXXXXXXXXX</**string**>  
<**string name="watson\_tts\_username"**xxxxxxXXXXXXXXxxxXXXXXXXXXXXX</**string**>  
<**string name="watson\_tts\_password"**>xxxxXXXXXXXXxxxxxxx</**string**>  
</**resources**>







Step 11:

Copy and paste the entire code in MainActivity.java(Android Studio) from here (with Text to Speech Integration)