**Developer TSE Take Home Test**

**Question 1:**

Hi!

I’m getting started with Twilio video and am looking for a way to create a room with recordings enabled. Can you supply me with the php code for that?

I’m also looking to adjust the recording settings to only record certain participants in the room, is that possible?

Can you clarify what the difference is between Twilio Video recordings and compositions?

Thanks,

Victor Video

**Answer:**

Dear Victor,

Good morning, I hope you have an excellent day, my name is William Pérez and I am going to help you resolve any questions you have.

To use recording in Twilio Video you need to create a group room via the REST API and set the RecordParticipantsOnConnect parameter to true.

- Example code:

$client = new Client($TWILIO\_API\_KEY, $TWILIO\_API\_SECRET);

$roomName = $client->video->rooms->create([

'uniqueName' => 'RecordedRoom',

'type' => 'group',

'record\_participants\_on\_connect' => true

]);

On the other hand, twilio video recordings is a programmable platform in the cloud that allows you to create video applications in real time, free video calls, creation of group rooms, on the other hand, twilio combinations are audio combinations, data and video of each participant generating a document of video recording and external storage AWS S3.

It must be understood that for each participant when the video room recording is enabled, three tracks mentioned above are generated (audio, data and video) and it is that combination of data that is responsible for the so-called Twilio Compositions. Therefore the Compositions API was created to help combine these disparate files for easier consumption.

If you have any doubts please do not hesitate to contact me.

Have a great day.

William Pérez

**Question 2:**

Hi Twilio,

I’m generating some voice requests with the following python code:

from twilio.rest import Client

import os

# Your Account Sid and Auth Token from twilio.com/user/account

account\_sid = os.environ[‘TWILIO\_ACCOUNT\_SID’]

auth\_token = os.environ['TWILIO\_AUTH\_TOKEN']

client = Client(account\_sid, auth\_token)

call = client.calls.create(

to="+14153211234",

from\_="+14152223344",

url='http://www.example.com/twiml.xml',

)

print (call.sid)

I’m getting back a call.sid however the call always plays “we’re sorry an application error has occurred” and in the Twilio debugger I’m getting back a 11200 error.

Please help!

Best,

Catherine Calls

**Answer:**

Dear Catherine,

I hope you have a great day, my name is William Pérez and I am going to help you solve the doubt that you have.

Error 11200 means that there is a connection failure between Twilio and your server, therefore it is necessary to disable SSL certificate validation in the Twilio account settings.

Through deactivating of the certificate in the account it is enough to solve the problem since the certificate generates a security layer that blocks the creation of calls.

If you have any doubts please do not hesitate to contact me.

Have a great day.

William Pérez

**Question 3:**

Hello,

Our app has suddenly stopped working, please help!

We've made no changes on our side. We are seeing "Failed to connect to api.twilio.com port 443: Connection timed out." There are no notices posted on https://status.twilio.com/.

I did a ping to api.twilio.com and it’s not responding, are you having an outage? Please help, we're completely down and losing business!

Sincerely,

Frank Failure

**Answer:**

Dear Frank,

The standard ping command does not use TCP or UDP. Use ICMP. To be more precise, ICMP type 8 (echo message) and type 0 (echo reply message) are used. Therefore ICMP has no ports!,that means that the port has nothing to do with it, therefore I am going to check the connectivity of the page to see if it is not down. But we can try the following:

1. Empty the DNS cache

2. Check that we have updated the network card

3. disable malware

If with the steps we have shown we have not solved the ping transmission error, we can choose to reset the network. This will return to the default configuration and will allow solving certain problems that appear.

Once again we have to go to Start, we enter Settings, we go to Network and Internet and there we go down until we see the Network Reset option. Remove and reconfigure the network adapters. Sometimes we may have configured something and generated a problem, perhaps a fault with the drivers, etc. This option will allow everything to go back to the origin and fix errors of this type.

If you have any doubts please do not hesitate to contact me.

Have a great day.

William Pérez

**Question 4:**

Please choose a programming language you are familiar with. You are passed the following json array of 5 different mobile phone numbers below, please send an SMS message to all 5 numbers and include error handling. Please submit your code snippet.

{

"numbers": [

"+18483211234",

"+14151234567",

"+19103217654",

"+12314567890",

"+17076543210"

]

}

**Answer:**

import json

import os

from twilio.rest import Client

with open('data.json') as json\_data:

data = json.load(json\_data,)

def call(data):

if isinstance(data, dict) == False:

raise Exception("Must be a dict!")

if ('numbers' in data.keys() ) == False:

raise Exception("There is not key called numbers, we need it!")

if isinstance(data['numbers'], list) == False:

raise Exception("The key numbers must be a list!")

if len(data['numbers']) == 0:

raise Exception("At least we need a phone number!")

account\_sid = os.environ['TWILIO\_ACCOUNT\_SID']

auth\_token = os.environ['TWILIO\_AUTH\_TOKEN']

for number in data['numbers']:

proxy\_client = TwilioHttpClient()

proxy\_client.session.proxies = {'https': os.environ['https\_proxy']}

client = Client(account\_sid, auth\_token, http\_client=proxy\_client)

message = client.messages \

.create(

body="Your message",

from\_='Your Twilio number',

to=number

)

print(message.sid)

call(data)

**Bonus Question #1:**

Create a Studio (<https://www.twilio.com/console/studio>) Flow which prompts for the key press / speech result of 1, 2, or 3, and loops 3 times if nothing/wrong thing is entered/said. Copy the Flow URL from your Flow and provide it here:

**Bonus Question #2:**

Set up the Chat Quick-Start (<https://www.twilio.com/docs/chat/javascript/quickstart>).

Please create a new channel and send a message from one participant to the channel and submit your Member, Channel, and Message SIDs: