# PROJECT DEFINITION

The project of development a code will have two stages.

**Stage 1**: you need to help me set up all parameters on Amazon SNS and write a code on Python to receive and store the data from a third application. It will call a HTTPS url that we must create and share to them with all data standardized in JSON. Every specific EVENT wih some kind of ACTION the application will call our url to send data and we will have established some FILTERS (as subscribers) to register only the data we want to use.

**Stage 2**: after I have those data came in a database file I will interpret it to set up a second application that will use those data. This WEB application will work as task manager. The layout of it will be simple because our focus will be functionality. However, I can only give you the instructions of it after we finished and approve the first stage.

## STAGE 1

### DOCUMENTATIONS

All Amazon SNS´s documentation you can access here:

https://docs.aws.amazon.com/sns/index.html

https://aws.amazon.com/sns/?nc1=h_ls

AWS SDK for Python (Boto3) Documentation:

https://docs.aws.amazon.com/pythonsdk/

Third Application documentation and standardize data:

https://perlink.atlassian.net/wiki/external/80876423/YjlkNjI5NDMzNTYxNDVlY2JiYTFlYmExYjAyM2UzODc

### DEFINITIONS

First lets establish some definitions for you better understand my goal. I don´t need to store all data received from JSON url, so we need to create files containing **filters specifications**. We will have three kind of file´s filters: STORE_ID.txt, EVENTS.txt and ACTIONS.txt.

**STORE ID**: as we have more than one store, we will have a txt file identifying all store codes and a filter of subscribe argument (yes/no). When this filter´s subscription is establish to (no) the application will have to discard all data related to it.

Example of a **stores.txt** file:

```
“IdDoEstabelecimento”, 1309, “Name: “, “Loja Moema”, “Subscription: “, “yes”
“IdDoEstabelecimento”, 1376, “Name: “, “Loja Perdizes”, “Subscription: “, “no”
```

**EVENTS**: All store´s event will have a notification (app call url) and I need to receive data from those I had subscription establish as (yes). I have 13 kind of events and your code have to read this file to filter the data I need to register.

Example of **events.txt** file:

“TipoDeEvento”,1,“Fechamento de Conta”,“Subscription: “,“yes"

“TipoDeEvento”,2,“Estorno do Fechamento de Conta”,“Subscription: “,“yes"

“TipoDeEvento”,3,“Inclusão do Cliente”,“Subscription: “,“yes"

“TipoDeEvento”,4,“Alteração do Cliente”,“Subscription: “,“yes"

“TipoDeEvento”,5,“Inclusão do Profissional”,“Subscription: “,“yes"

“TipoDeEvento”,6,“Alteração do Profissional”,“Subscription: “,“no"

“TipoDeEvento”,7,“Inutilização do Profissional”,“Subscription: “,“no"

“TipoDeEvento”,8,“Cadastro de Estabelecimento”,“Subscription: “,“no"

“TipoDeEvento”,9,“Exclusão de Estabelecimento”,“Subscription: “,“no"

“TipoDeEvento”,10,“Alteração de Estabelecimento”,“Subscription: “,“no"

“TipoDeEvento”,11,“Inclusão de Agendamento”,“Subscription: “,“yes"

“TipoDeEvento”,12,“Alteração de Agendamento”,“Subscription: “,“yes"

“TipoDeEvento”,13,“Exclusão de Agendamento”,“Subscription: “,“yes"

**ACTION**: All events will have one action on it and I need to receive data from those I had subscription establish as (yes).

Example of **actions.txt** file:

"Action”,1, “Inclusão”,”yes"
"Action”2, “Alteração”, ”yes"
"Action”9, “Estorno”, ”yes"
"Action”3, “Exclusão”, ”yes"

## HOW TO FILTER AND STORE DATA

As each event has a different data structure. I thought it would be better to have separated data tables in a SQL file (named as Webhook_db) cause I need to analyze and understand the data to go on and write **Stage 2 definitions**. Lets look an example to better understand my needs.

Let’s suppose we receive the data (in red) bellow from our url we created

```
"Message" :
"{\"IdDoEstabelecimento\":1309,\"IdDoCliente\":462885,\"IdDoClienteNoE
stabelecimento\":445319,\"IdPessoaDoProfissional\":445989,\"IdDoProfis
sional\":9678,\"IdDoProfissionalNoEstabelecimento\":14073,\"IdDaTransa
cao\":47999,\"IdsDosProfissionaisEnvolvidos\":[{\”IdDosItens\":[388082
5,4497],\"IdPessoaDoProfissional\":445989,\"IdDoProfissional\":9678,\"
IdDoProfissionalNoEstabelecimento\":14073}],\"ValorDaCompra\":\"10\",\
"DataDoFechamento\":\"2022-02-02
10:15:15\",\"IdDoProfissionalQueFechouConta\":1355,\"IdDoProfissionalN
oEstabelecimentoQueFechouConta\":1015,\"NomeDoProfissionalQueFechouCon
ta\":\"Ágata \",\"NomeDoCliente\":\"ALEXANDRE\",\"CPFDoCliente\":
\"\",\"EmailDoCliente\":\"teste@teste.com.br\",\"TelefoneDoCliente\":[
{\"DDD\":\"21\",\"Numero\":\"999999999\",\"Operadora\":\"\",\"Telefone
Completo\":\"(21) 99999-
9999\"}],\"DataDeNascimentoDoCliente\":\"\",\"SexoDoCliente\":\"M\",\"
EnderecoDoCliente\":{\"Logradouro\":\"ESTRADA DE
JACAREPAGUÁ\",\"Numero\": \"\",\"Bairro\":\"FREGUESIA
(JACAREPAG\",\"Cidade\":\"RIO DE
JANEIRO\",\"UF\":\"RJ\",\"EnderecoCompleto\":\"ESTRADA DE JACAREPAGUÁ,
FREGUESIA (JACAREPAG, RIO DE JANEIRO, RJ\",\"Complemento\":
\"\"},\"DataDeInclusaoDoCliente\":\"2021-08-17
19:25:35\",\"Action\":1,\"TipoDeEvento\":1,\"Itens\":[{\"Id\":94469,\"
Nome\":\"Serviço de cabelo
teste\",\"Quantidade\":1,\"ValorUnitario\":80,\"DescontoTotal\":0,\"Mo
tivoDesconto\": \"\",\"Total\":80,\"EAN\":
```

First the code will do the filters. It will take the **store id** from **IdDoEstabelecimento** that is equal to 1309. Open the stores.txt file and look for this store id code on it. If it is established as “no” it will discard all this information. If it don´t find this code Id, I need to be notified because something must be wrong. (this exception alert could be a e-mail or something you feel better to code)

Suposing that it found the store id and it is setup to “yes”. The second verification will be **TipoDeEvento**. It will open **events.txt** file and look for TipoDeEvento == 1, which in the **events.txt** file was established as “yes” and goes on to the last filter check. If don´t you forget these data.

Now It will open **actions.txt** file and look for "Action” == 1, that was established as “yes” and as it will proceed with append those information to the database.

Let´s go on now to register all kind of information. On SQL file we must have 13 tables named like those events above:

| | |
|---|---|
| 1 | Fechamento de Conta |
| 2 | Estorno do Fechamento de Conta |
| 3 | Inclusão do Cliente |
| 4 | Alteração do Cliente |
| 5 | Inclusão do Profissional |
| 6 | Alteração do Profissional |
| 7 | Inutilização do Profissional |
| 8 | Cadastro de Estabelecimento |
| 9 | Exclusão de Estabelecimento |
| 10 | Alteração de Estabelecimento |
| 11 | Inclusão de Agendamento |
| 12 | Alteração de Agendamento |
| 13 | Exclusão de Agendamento |

Though at this example above, as **TipoDeEvento == 1** and is related to “**Fechamento de Conta**” you will register this data to this table. If it was == to 10 it would be register in “**Alteração de Estabelecimento**” table.

**NOTE**: You should notice that some data is **structured as a dictionary and list.** For now, we could have those data stored in only one column. Let´s see an example: on this data above, we have the label "**IdsDosProfissionaisEnvolvidos**\": and a list of [{\”IdDosItens\":[3880825,4497],\"IdPessoaDoProfissional\":445989,\"IdDoProfissional\":9678,\"IdDoProfissionalNoEstabelecimento\":14073}]

We have the label "**TelefoneDoCliente**\": and a list of [{\"DDD\":\"21\",\"Numero\":\"999999999\",\"Operadora\":\"\",\"TelefoneCompleto\":\"(21) 99999-9999\"}]

From know we could have those data stored as list with the label. Example: Column label **TelefoneDoCliente** and the data list. NOTE: we must have the ability to split these data list if Stage 2 phase require it.

| Label name | Data |
|---|---|
| Message | |
| IdDoEstabelecimento | 1309 |
| IdDoCliente | 462885 |
| IdDoClienteNoEstabelecimento | 445319 |
| IdPessoaDoProfissional | 445989 |
| IdDoProfissional | 9678 |
| IdDoProfissionalNoEstabelecimento | 14073 |
| IdDaTransacao | 47999 |
| **IdsDosProfissionaisEnvolvidos** | {”IdDosItens":[3880825,4497],"IdPessoaDoProfissional":445989,"IdDoProfissional":9678,"IdDoProfissionalNoEstabelecimento":14073} |
| ValorDaCompra | "10" |
| DataDoFechamento | "2022-02-02 10:15:15" |
| IdDoProfissionalQueFechouConta | 1355 |
| IdDoProfissionalNoEstabelecimentoQueFechouConta | 1015 |
| NomeDoProfissionalQueFechouConta | "Ágata " |
| NomeDoCliente | "ALEXANDRE" |
| CPFDoCliente | "" |
| EmailDoCliente | "teste@teste.com.br" |
| **TelefoneDoCliente** | {\"DDD\":\"21\",\"Numero\":\"999999999\",\"Operadora\":\"\",\"TelefoneCompleto\":\"(21) 99999-9999\"} |
| DataDeNascimentoDoCliente | "" |
| SexoDoCliente | "M" |
| **EnderecoDoCliente** | {"Logradouro":"ESTRADA DE JACAREPAGUÁ","Numero": "","Bairro":"FREGUESIA (JACAREPAG","Cidade":"RIO DE JANEIRO","UF":"RJ","EnderecoCompleto":"ESTRADA DE JACAREPAGUÁ, FREGUESIA (JACAREPAG, RIO DE JANEIRO, RJ","Complemento": ""} |
| DataDeInclusaoDoCliente | "2021-08-17 19:25:35" |
| Action | 1 |
| TipoDeEvento | 1 |
| Itens | |
| Id | 94469 |
| Nome | "Serviço de cabelo teste" |
| Quantidade | 1 |
| ValorUnitario | 80 |
| DescontoTotal | 0 |
| MotivoDesconto | "" |
| Total | 80 |
| EAN | |

## Where to store the data.

I already have a SQL server running a program and I hope we can use the same server to store this SQL file. It is at this address below and I will give you instruction´s access after we establish our partnership.

https://phpmyadmin2.porta80.com.br/