**Desafio 5:**

**Construção de um aplicativo em Python que use o Google Sheets como BD:**

Contextualizando os serviços providenciados pela Google API, com o poder do Python, siga o tutorial indicado no link, e recrie a aplicação de consulta de dados em folhas de cálculo google drive.

Links:

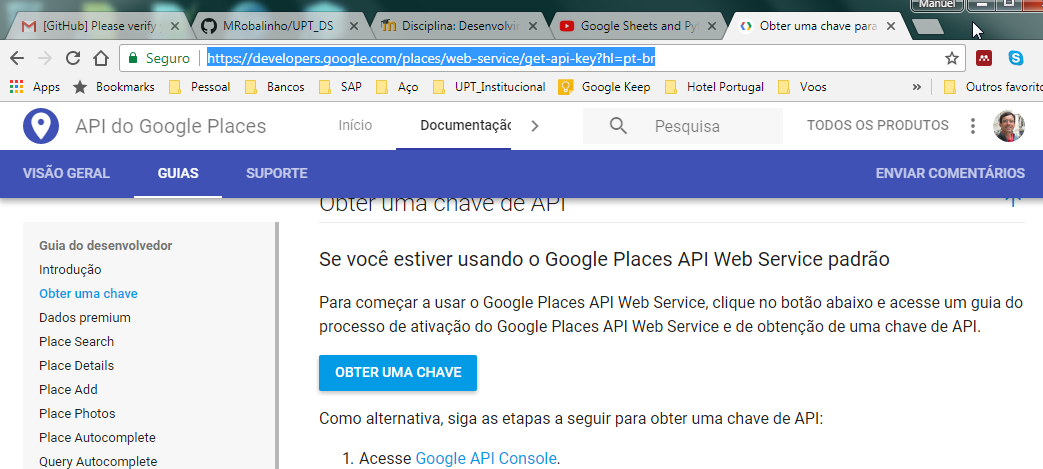
* video demo - youtube - google sheets and python :
* <https://www.youtube.com/watch?time_continue=13&v=vISRn5qFrkM>
* Google Spreadsheets Python API - <https://github.com/burnash/gspread>
* Obtenção credenciais, usando tecnologia OAuth2

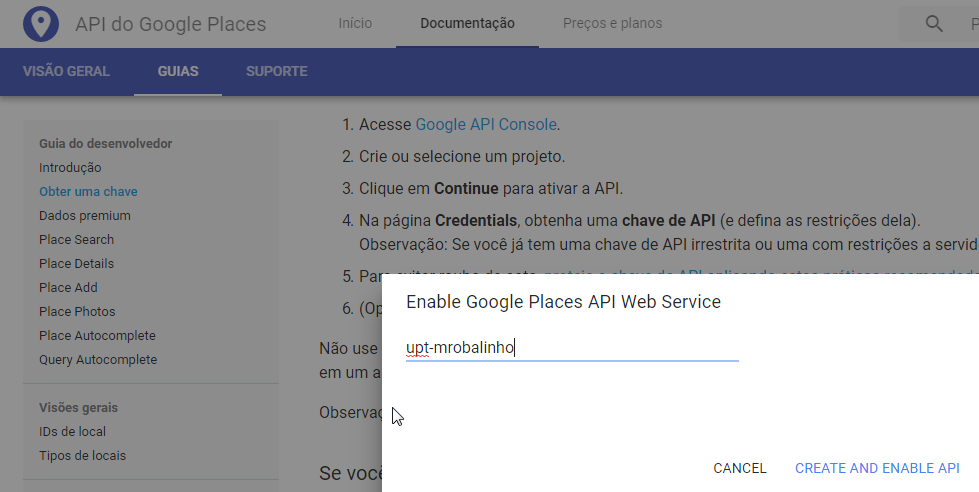
<http://gspread.readthedocs.io/en/latest/oauth2.html>

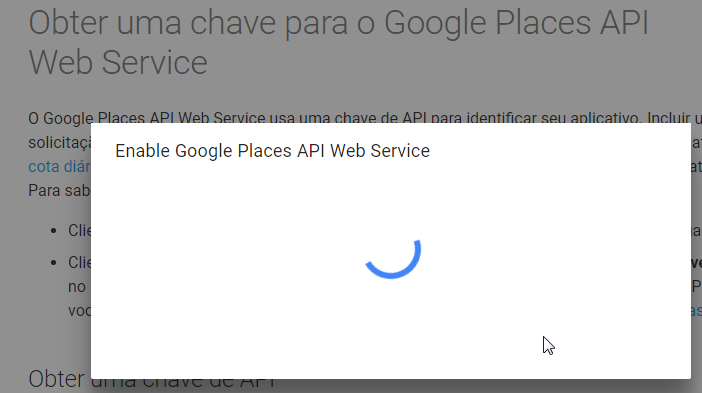
Google API Explorer

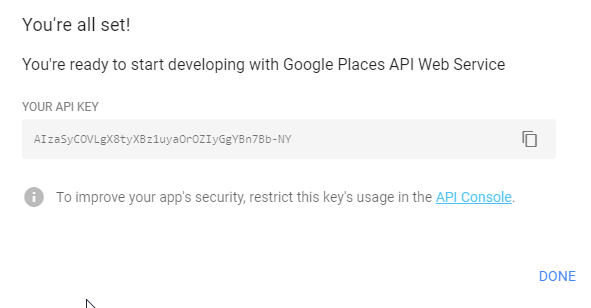
Criação de projeto:

<https://developers.google.com/places/web-service/get-api-key?hl=pt-br>



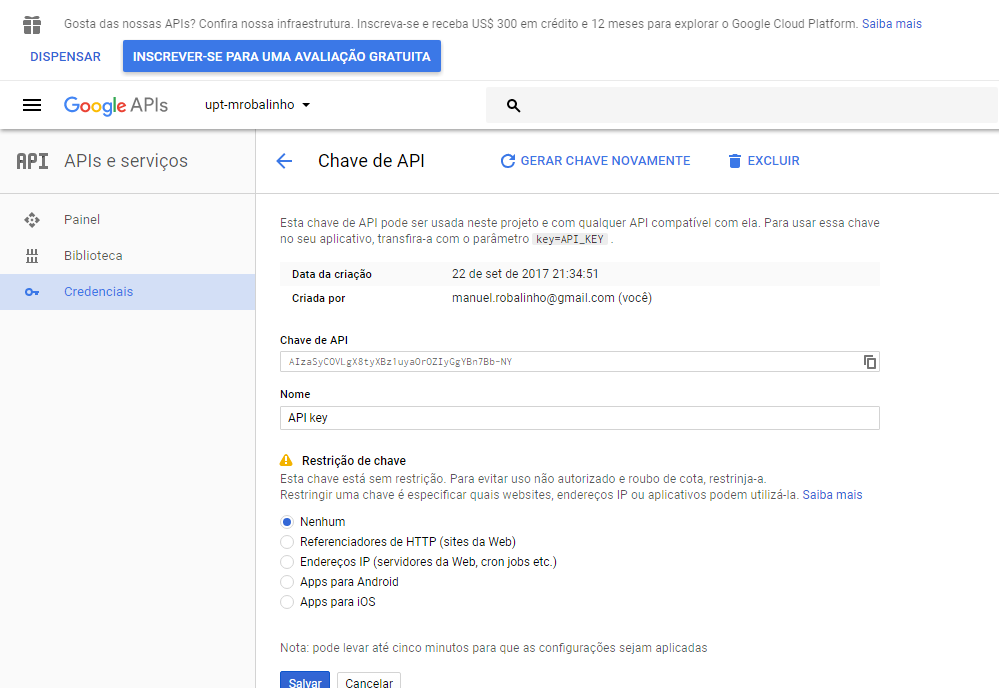




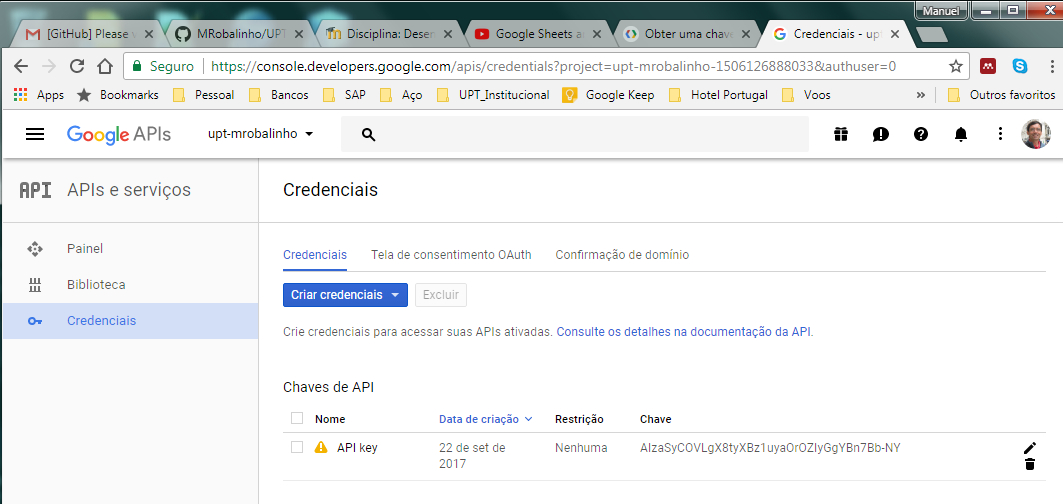


Chave:

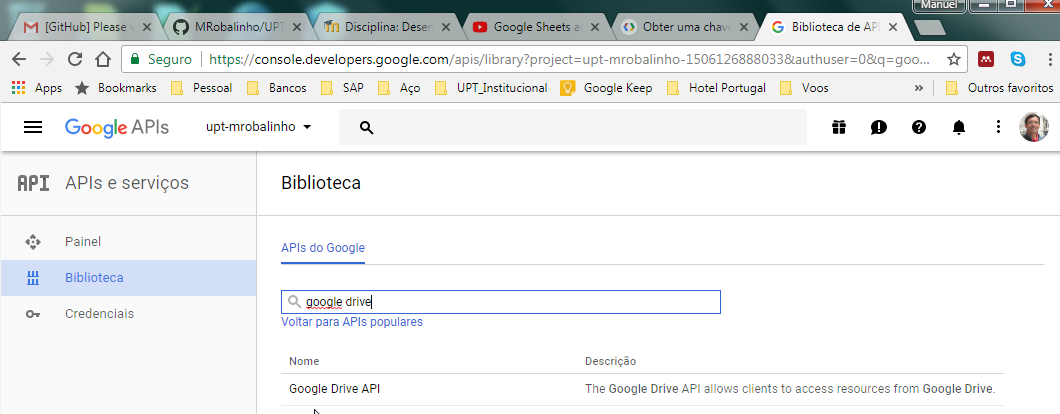
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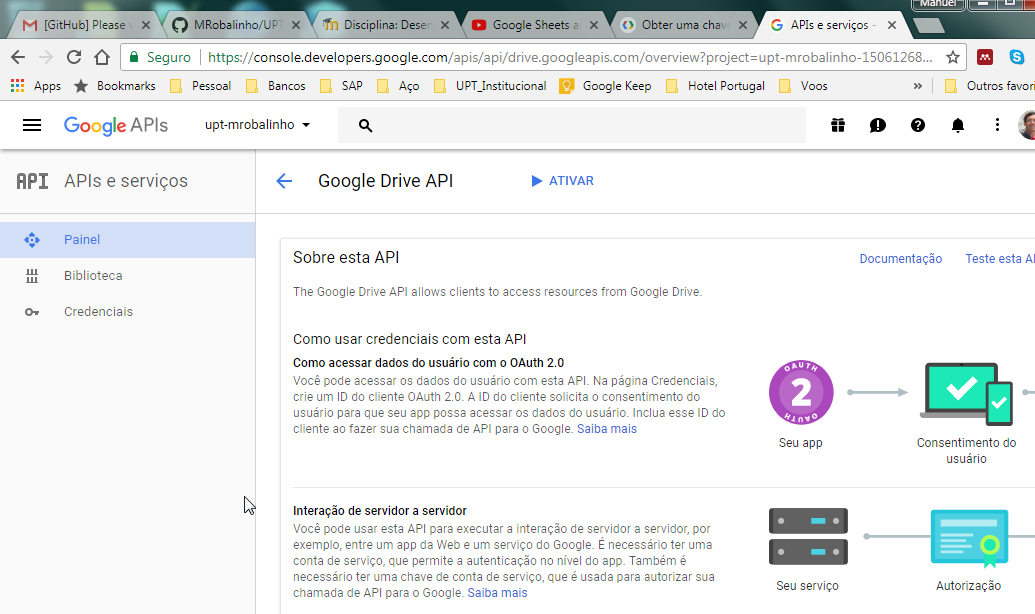
<https://console.developers.google.com/apis/credentials?project=upt-mrobalinho-1506126888033&authuser=0>



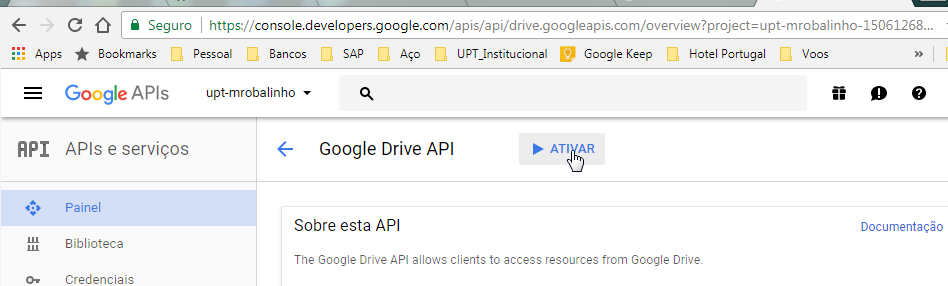
Aceder a bibliotecas do Google Drive:



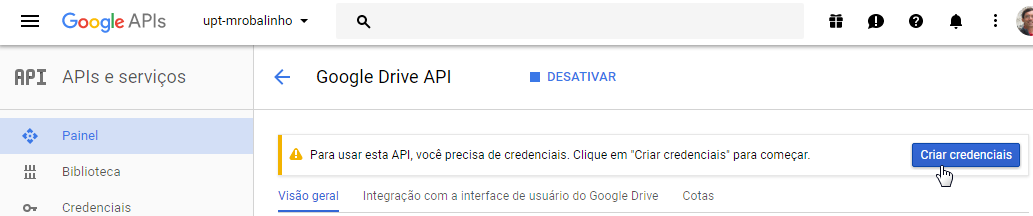
Aceder à Google Drive API

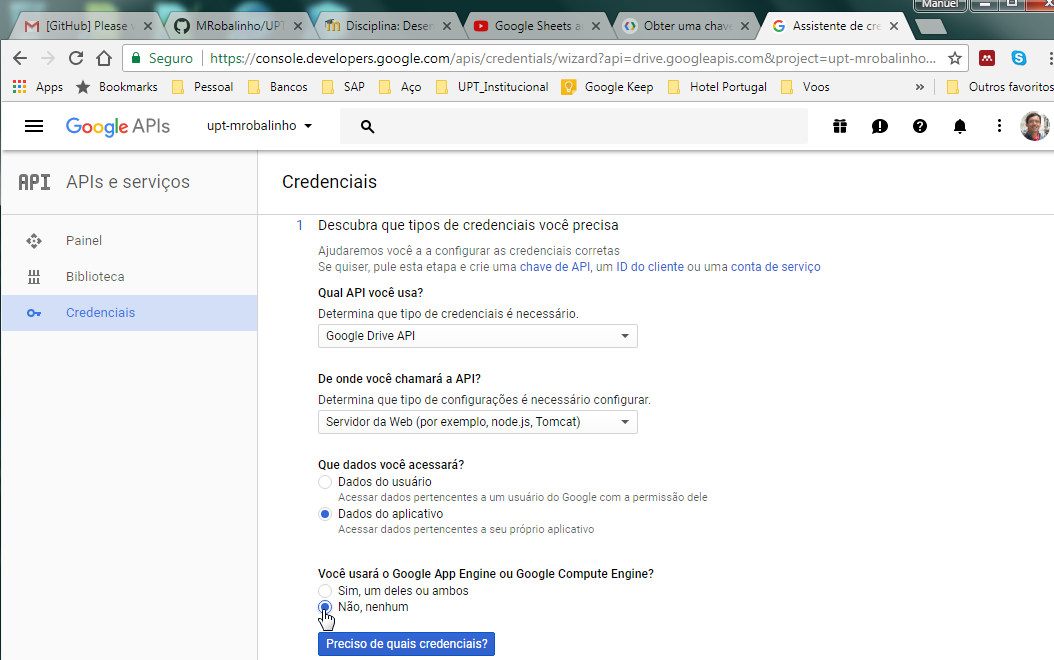


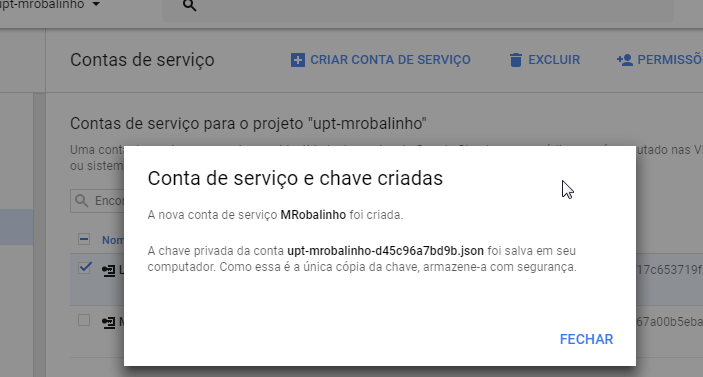
Ativar



Criar credenciais para usar a API





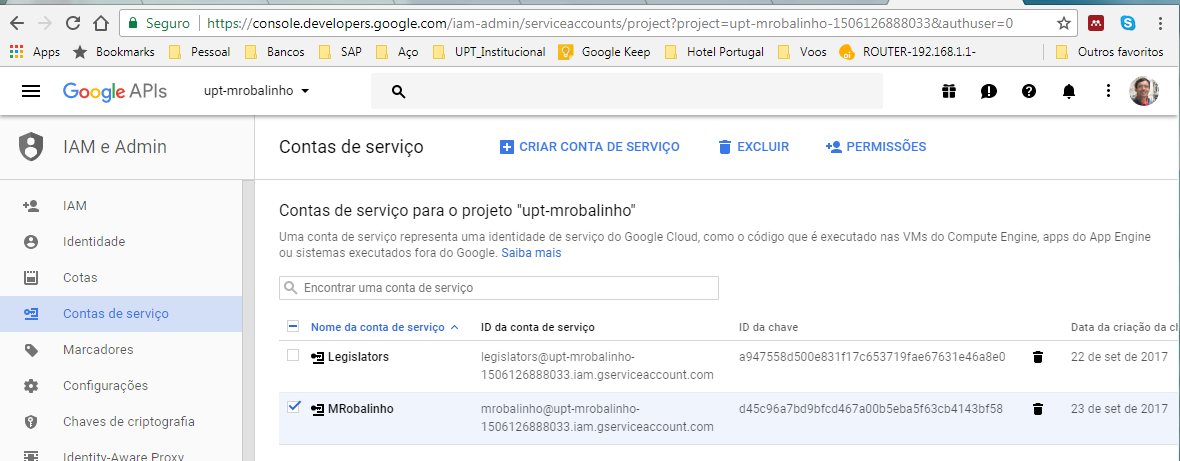


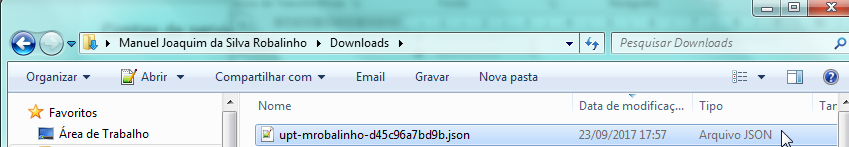
Criou um arquivo no Download

Conta de serviço e chave criadas

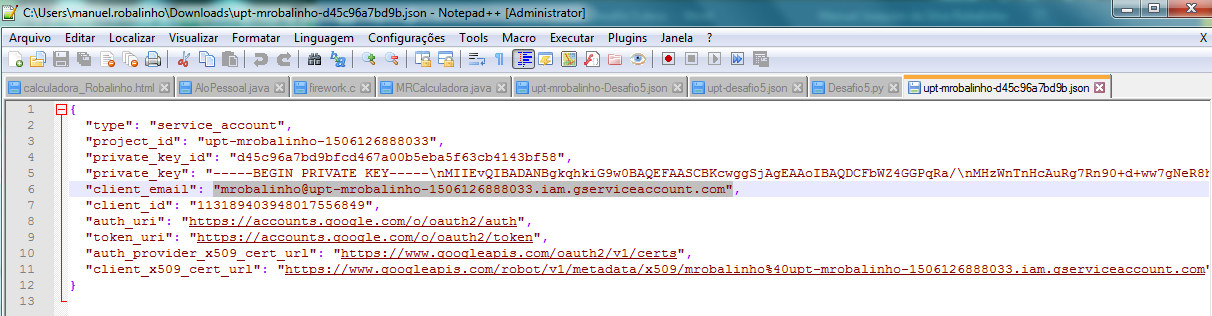
A nova conta de serviço MRobalinho foi criada.

A chave privada da conta upt-mrobalinho-d45c96a7bd9b.json foi salva em seu computador. Como essa é a única cópia da chave, armazene-a com segurança.





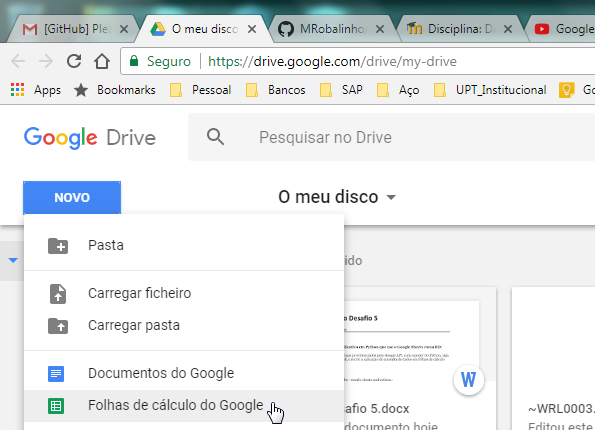
Abrindo o JSON file com o notepad++

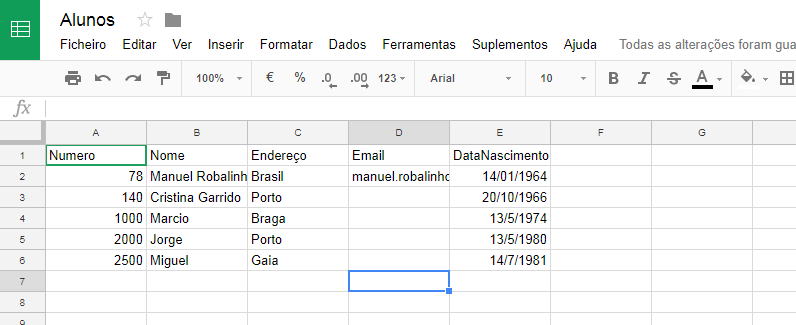


Criar uma Spread Sheet no Goggle drive e partilha-la com o endereço de email especificado no JSON File:

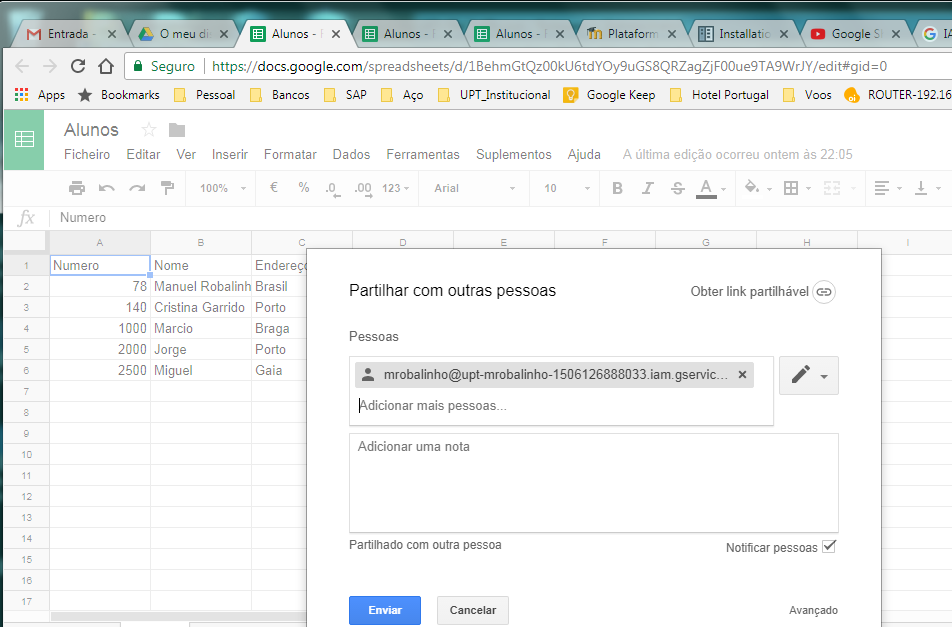
**"client\_email": "mrobalinho@upt-mrobalinho-1506126888033.iam.gserviceaccount.com",**

Criando a Folha de calculo no Google Drive:



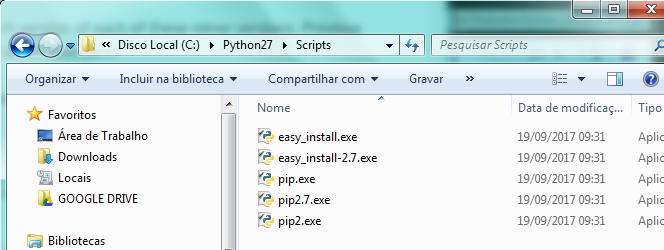


Partilha da folha:

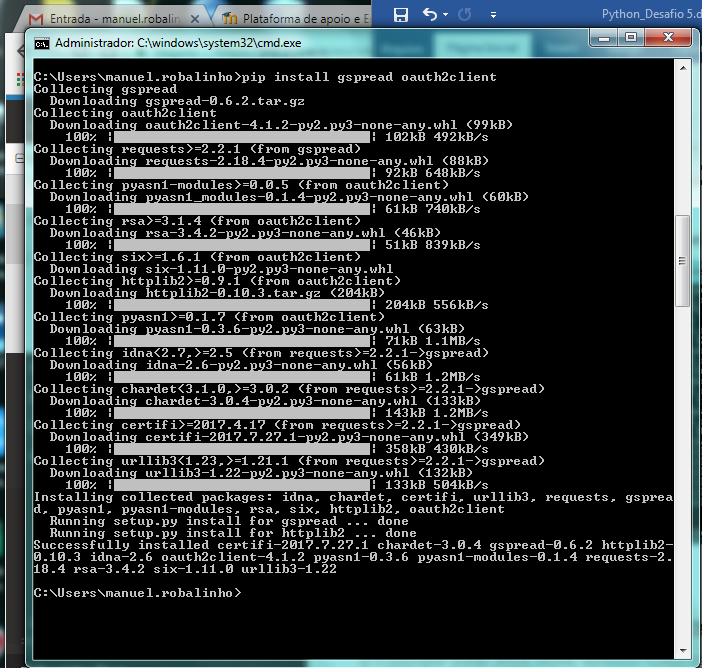


Instalando o package gspread no Python

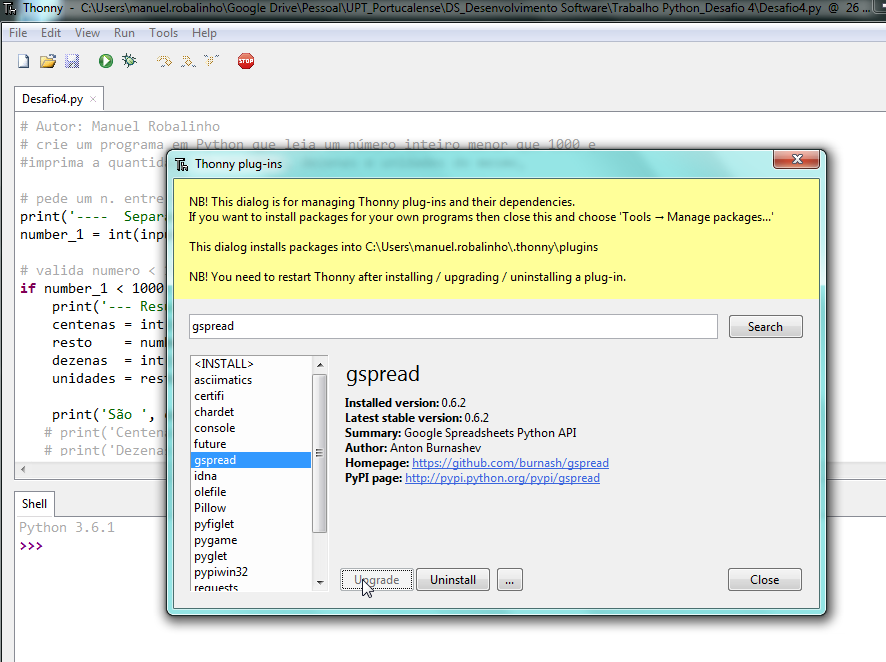
O PIP encontra-se nas pastas de instalação do Python, precisamos executar o PIP na linha de comandos do DOS, exemplo:



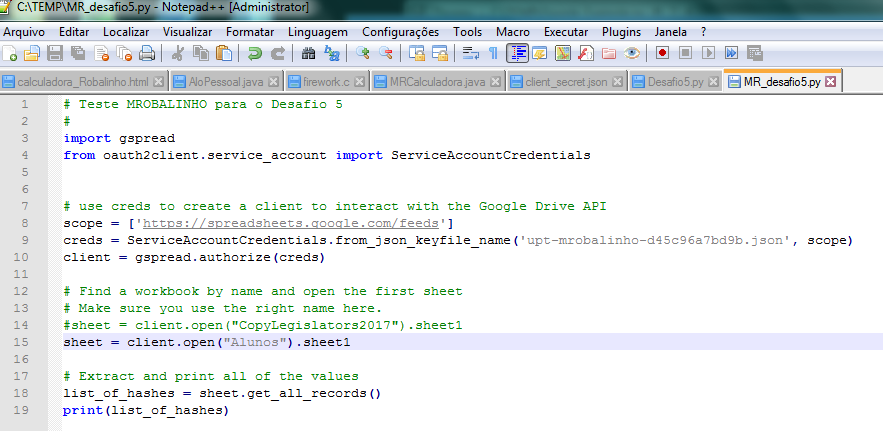
* Cmd
* C:> Pip install gspread oauth2client



Em alternativa: Instalação no Thonny- No Thonny instalei o package o Google Spreadsheets Python API **(gspread)**



# Desenvolvimento Python:



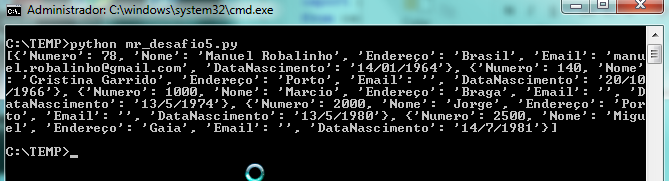
# Execução:

Cmd

Python mr\_desafio5.py



Apresentação dos dados que estão na SpreadSheet que criei no Google Drive



# Documentacao

<https://developers.google.com/sheets/api/quickstart/python>

<https://www.tutorialspoint.com/python/python_gui_programming.htm>

# Instalação pip

<https://www.youtube.com/watch?v=zPMr0lEMqpo>

<https://pypi.python.org/pypi>

[www.pip-installer.org/en/latest](http://www.pip-installer.org/en/latest)