

Programa IMC desenvolvido em Python e Rodando em Docker

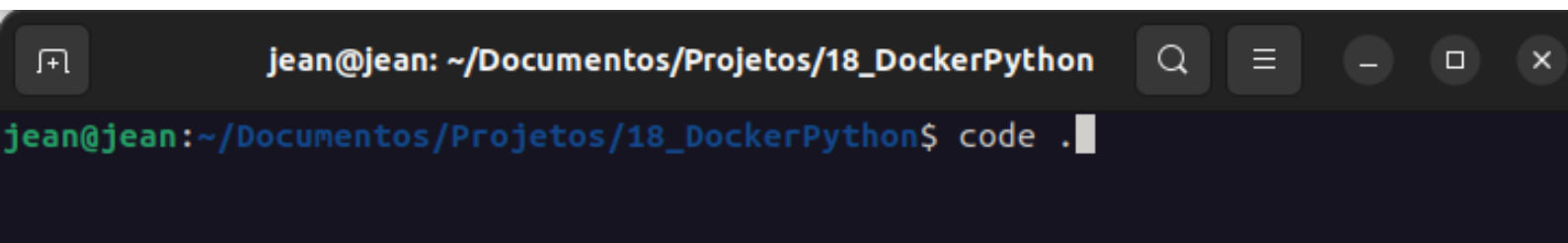
VALORES DO IMC: PESSOAS DE 20 A 60 ANOS

VALOR DO IMC	CLASSIFICAÇÃO
<i>Menor que 18,5</i>	<i>Baixo peso</i>
<i>De 18,5 a 24,99</i>	<i>Normal</i>
<i>De 25 a 29,99</i>	<i>Sobrepeso</i>
<i>Maior que 30</i>	<i>Obesidade</i>

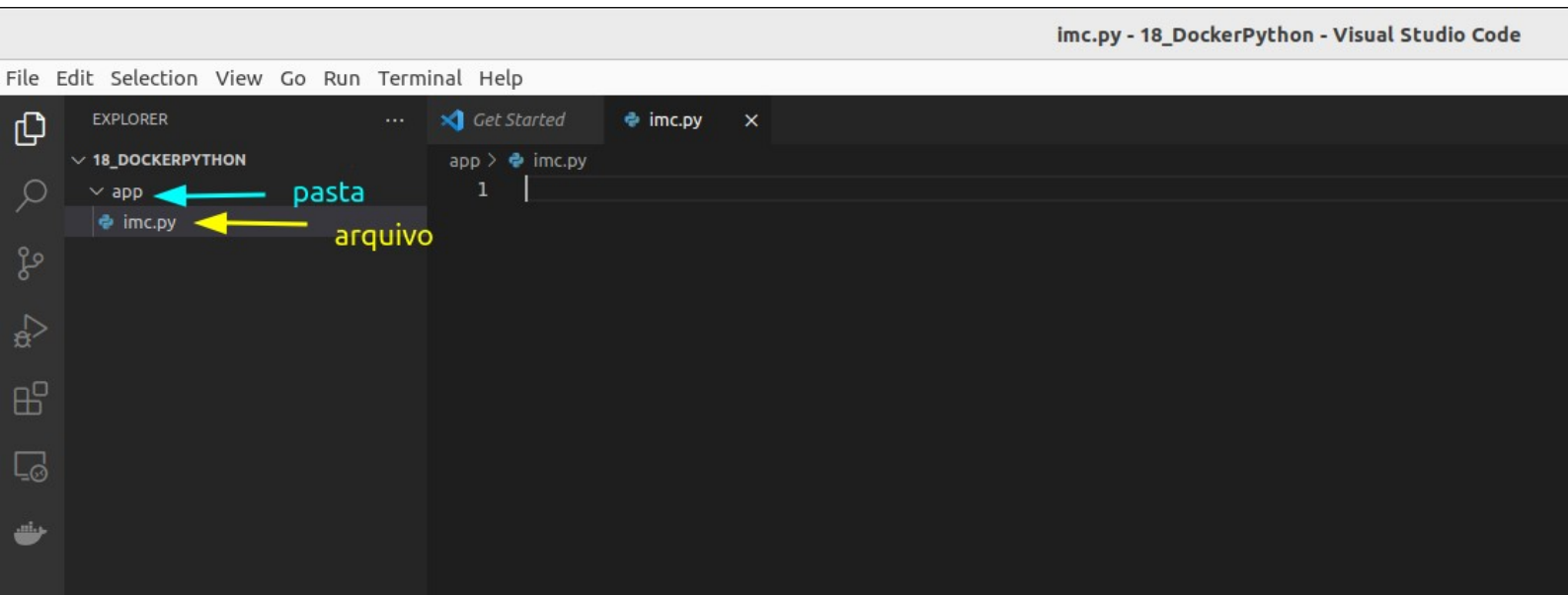


Criando a estrutura de pasta com vs code

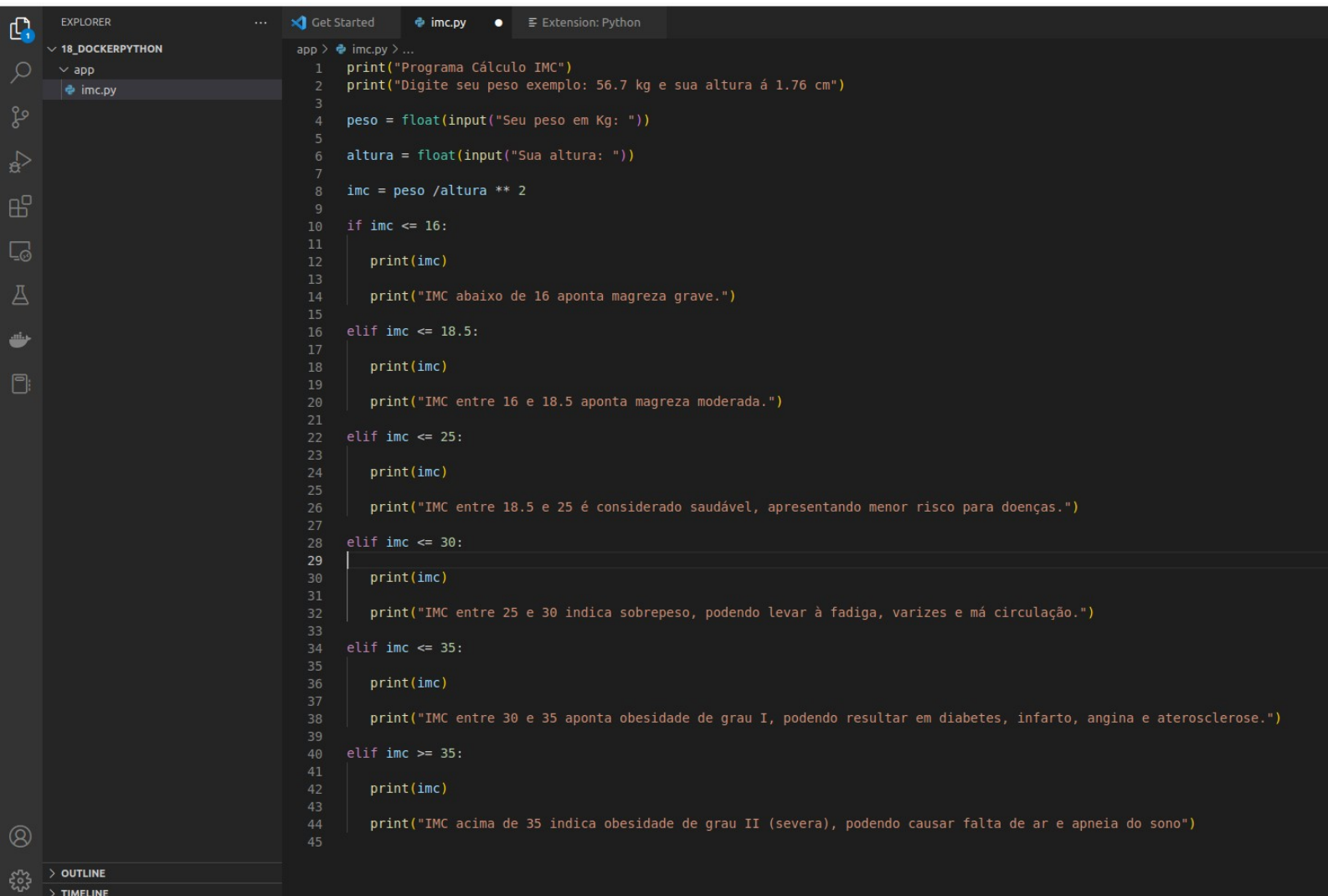
code .



Criando a pasta **app** e arquivo **imc.py**



Código

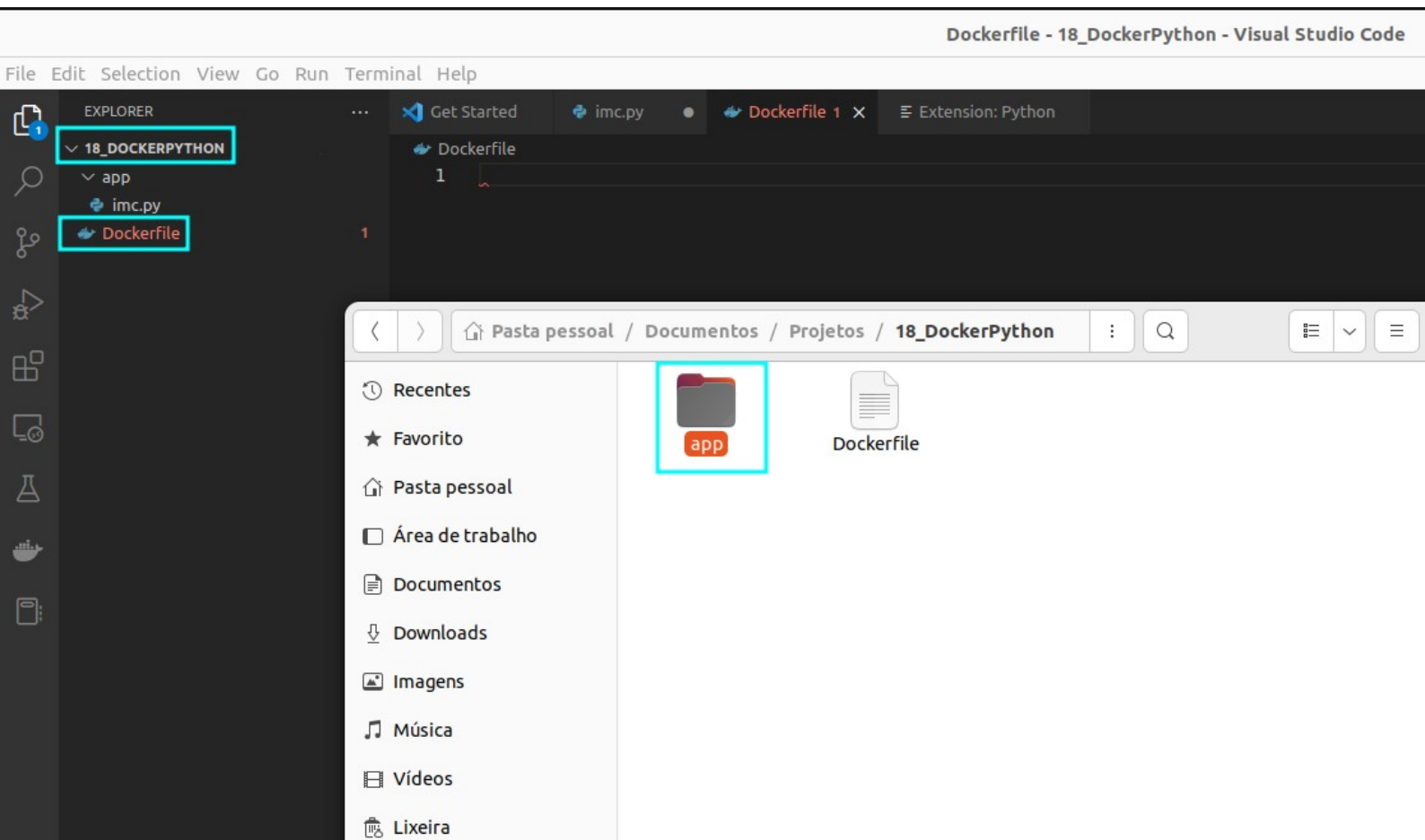


The image shows a screenshot of the Visual Studio Code (VS Code) editor interface. The Explorer panel on the left shows a project named '18_DOCKERPYPYTHON' with a subfolder 'app' containing a file 'imc.py'. The main editor area displays the code for 'imc.py', which is a Python script for calculating the Body Mass Index (BMI) and providing health advice based on the result. The code is as follows:

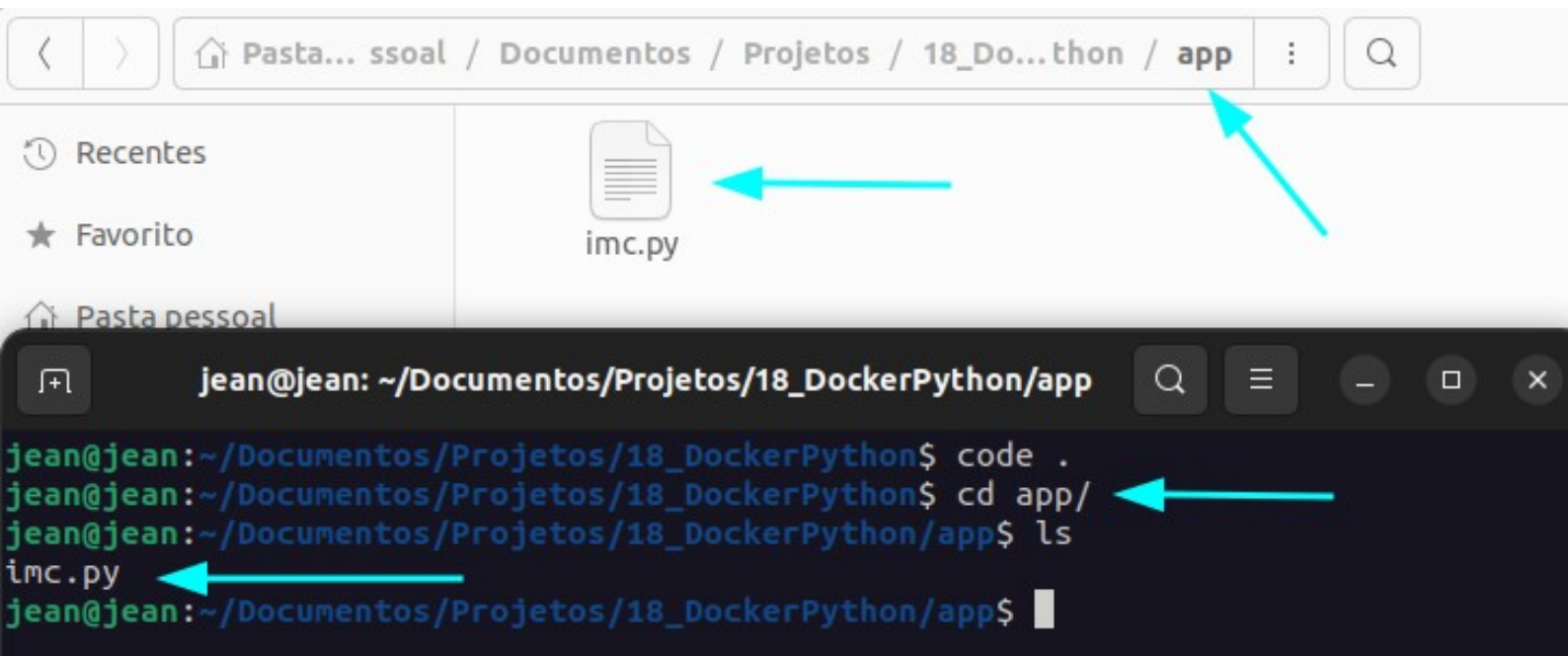
```
app > imc.py > ...
1  print("Programa Cálculo IMC")
2  print("Digite seu peso exemplo: 56.7 kg e sua altura á 1.76 cm")
3
4  peso = float(input("Seu peso em Kg: "))
5
6  altura = float(input("Sua altura: "))
7
8  imc = peso /altura ** 2
9
10 if imc <= 16:
11     print(imc)
12     print("IMC abaixo de 16 aponta magreza grave.")
13
14 elif imc <= 18.5:
15     print(imc)
16     print("IMC entre 16 e 18.5 aponta magreza moderada.")
17
18 elif imc <= 25:
19     print(imc)
20     print("IMC entre 18.5 e 25 é considerado saudável, apresentando menor risco para doenças.")
21
22 elif imc <= 30:
23     print(imc)
24     print("IMC entre 25 e 30 indica sobrepeso, podendo levar à fadiga, varizes e má circulação.")
25
26 elif imc <= 35:
27     print(imc)
28     print("IMC entre 30 e 35 aponta obesidade de grau I, podendo resultar em diabetes, infarto, angina e aterosclerose.")
29
30 elif imc >= 35:
31     print(imc)
32     print("IMC acima de 35 indica obesidade de grau II (severa), podendo causar falta de ar e apneia do sono")
33
34
35
36
37
38
39
40
41
42
43
44
45
```

Criando Dockerfile

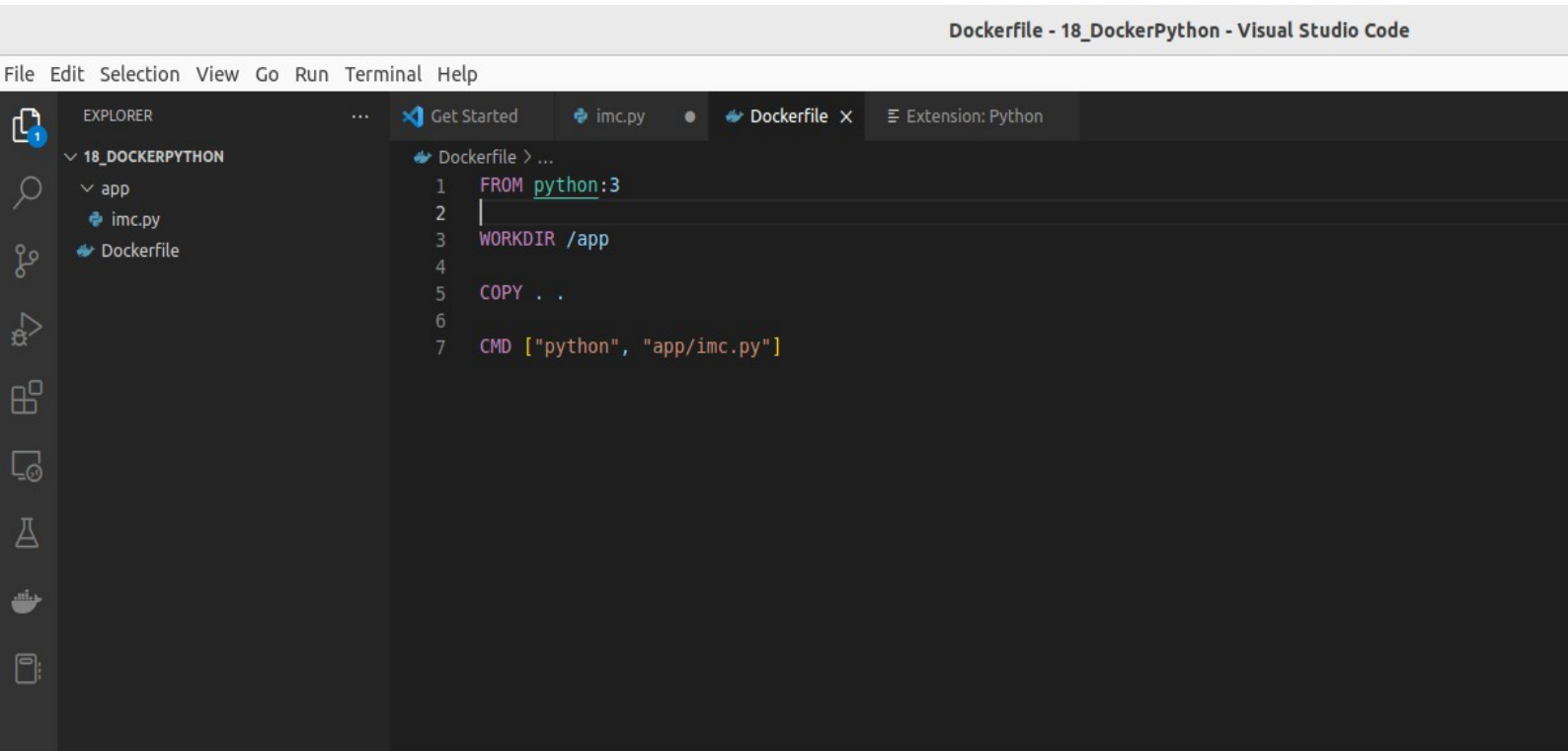
Observação: O Dockerfile tem que ficar fora da pasta **app**



Dentro da pasta app



Criando nosso Dockerfile

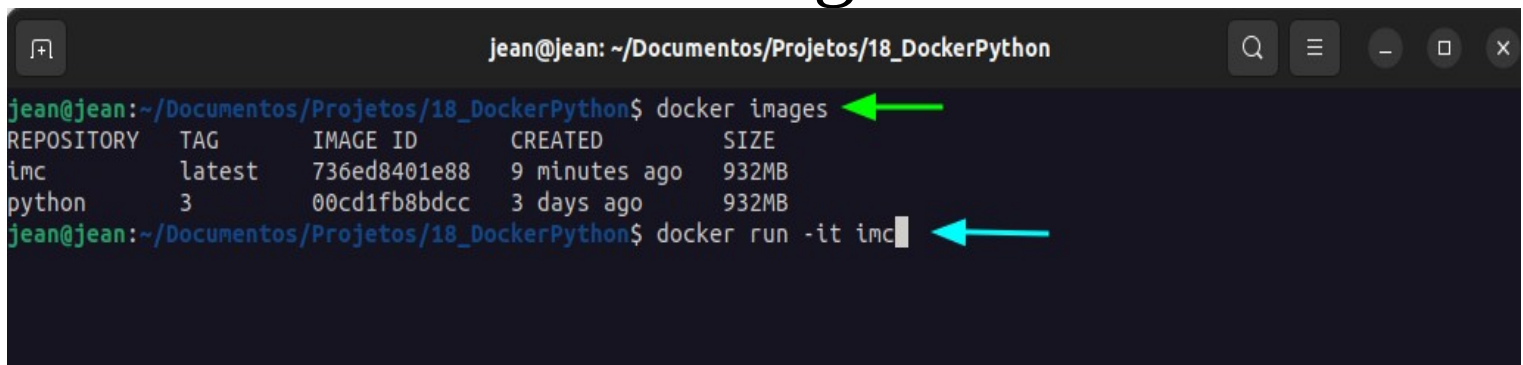


Build do Dockerfile

```
jean@jean: ~/Documentos/Projetos/18_DockerPython
jean@jean:~/Documentos/Projetos/18_DockerPython/app$ cd .. volta pasta
jean@jean:~/Documentos/Projetos/18_DockerPython$ docker build -t inc . build
Sending build context to Docker daemon 3.072kB
Step 1/4 : FROM python:3
3: Pulling from library/python
17c9e6141fdb: Pull complete
de4a4c6caea8: Pull complete
4edced8587e6: Pull complete
a7969cffbf46: Pull complete
74fbfde6af91: Pull complete
16fe51aed899: Pull complete
e9ee507bb0de: Pull complete
4d9dbb46d211: Pull complete
3b9b3c4e849c: Pull complete
Digest: sha256:fc809ada71c087cec7e2d2244bcb9fba137638978a669f2aaf6267db43e89fdf
Status: Downloaded newer image for python:3
--> 00cd1fb8bdcc
Step 2/4 : WORKDIR /app
--> Running in b018a78ff2bd
Removing intermediate container b018a78ff2bd
--> 9d73f0c0a5cc
Step 3/4 : COPY . .
--> fb06ff08ccde
Step 4/4 : CMD ["python", "app/index.py"]
--> Running in 8bd5cc2c8f3f
Removing intermediate container 8bd5cc2c8f3f
--> 736ed8401e88
Successfully built 736ed8401e88
Successfully tagged inc:latest

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
jean@jean:~/Documentos/Projetos/18_DockerPython$
```

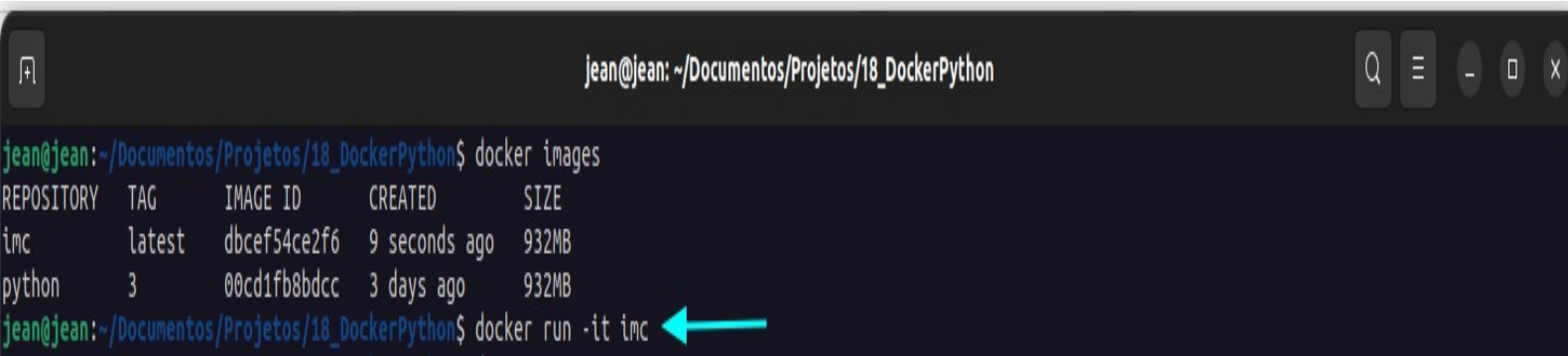

Listando nossas imagens & iniciando



A terminal window titled "jean@jean: ~/Documentos/Projetos/18_DockerPython" with standard window controls. The terminal shows the execution of two Docker commands. The first command, "docker images", is highlighted with a green arrow and produces a table of Docker images. The second command, "docker run -it imc", is highlighted with a cyan arrow.

```
jean@jean:~/Documentos/Projetos/18_DockerPython$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
imc           latest    736ed8401e88   9 minutes ago  932MB
python        3         00cd1fb8bdcc   3 days ago    932MB
jean@jean:~/Documentos/Projetos/18_DockerPython$ docker run -it imc
```

Rodando nossa imagem Docker



A terminal window with a dark background. The title bar shows the user 'jean@jean' and the path '~/Documentos/Projetos/18_DockerPython'. The terminal displays the output of the 'docker images' command, which lists two images: 'inc:latest' and 'python:3'. Below this, the command 'docker run -it inc' is entered, with a red arrow pointing to it.

```
jean@jean: ~/Documentos/Projetos/18_DockerPython$ docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
inc	latest	dbcef54ce2f6	9 seconds ago	932MB
python	3	00cd1fb8bdcc	3 days ago	932MB

```
jean@jean:~/Documentos/Projetos/18_DockerPython$ docker run -it inc
```

Executando Programa IMC

```
jean@jean:~/Documentos/Projetos/18_DockerPython$ docker run -it imc
Programa Cálculo IMC
Digite seu peso exemplo: 56.7 kg e sua altura á 1.76 cm
Seu peso em Kg: 70
Sua altura: 1.70
24.221453287197235
IMC entre 18.5 e 25 é considerado saudável, apresentando menor risco para doenças.
jean@jean:~/Documentos/Projetos/18_DockerPython$
```