



# DEMO PYTHON

ALFIRA  
EGA  
IKHSAN

# SOFTWARE DAN TOOLS

01 Python 3.10 atau diatasnya

02 Text editor

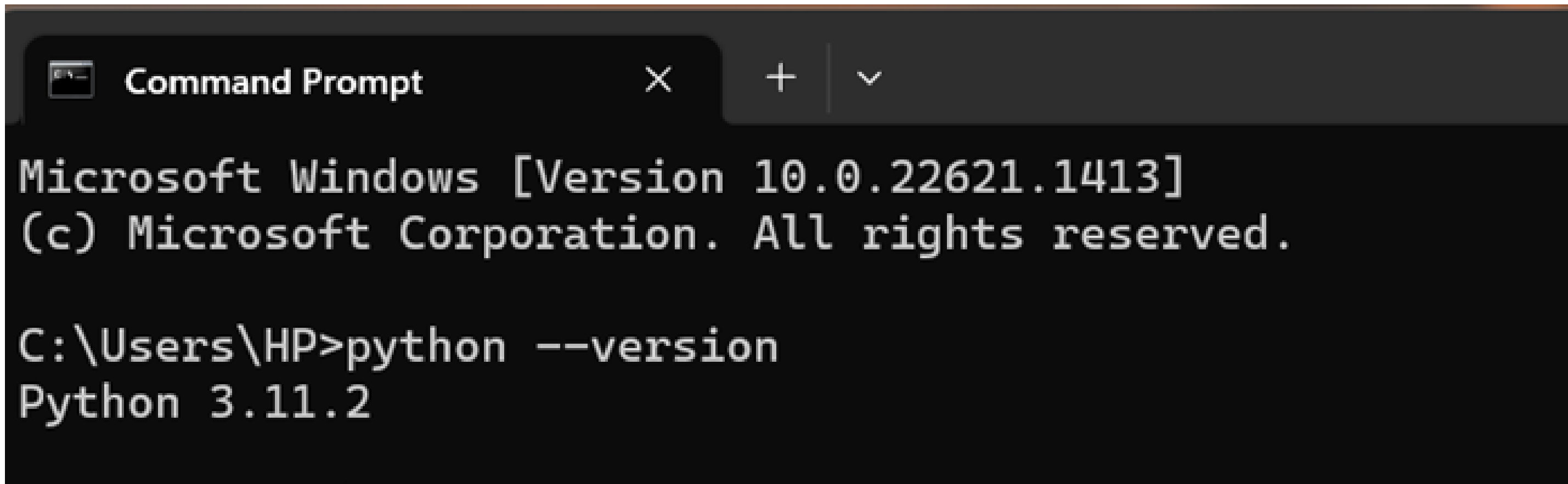
03 Git (opsional)

04 Pygame



# INSTALASI PYTHON

Melakukan Instalasi Python Versi 3.10  
atau diatasnya ( python.org )



```
Command Prompt
Microsoft Windows [Version 10.0.22621.1413]
(c) Microsoft Corporation. All rights reserved.

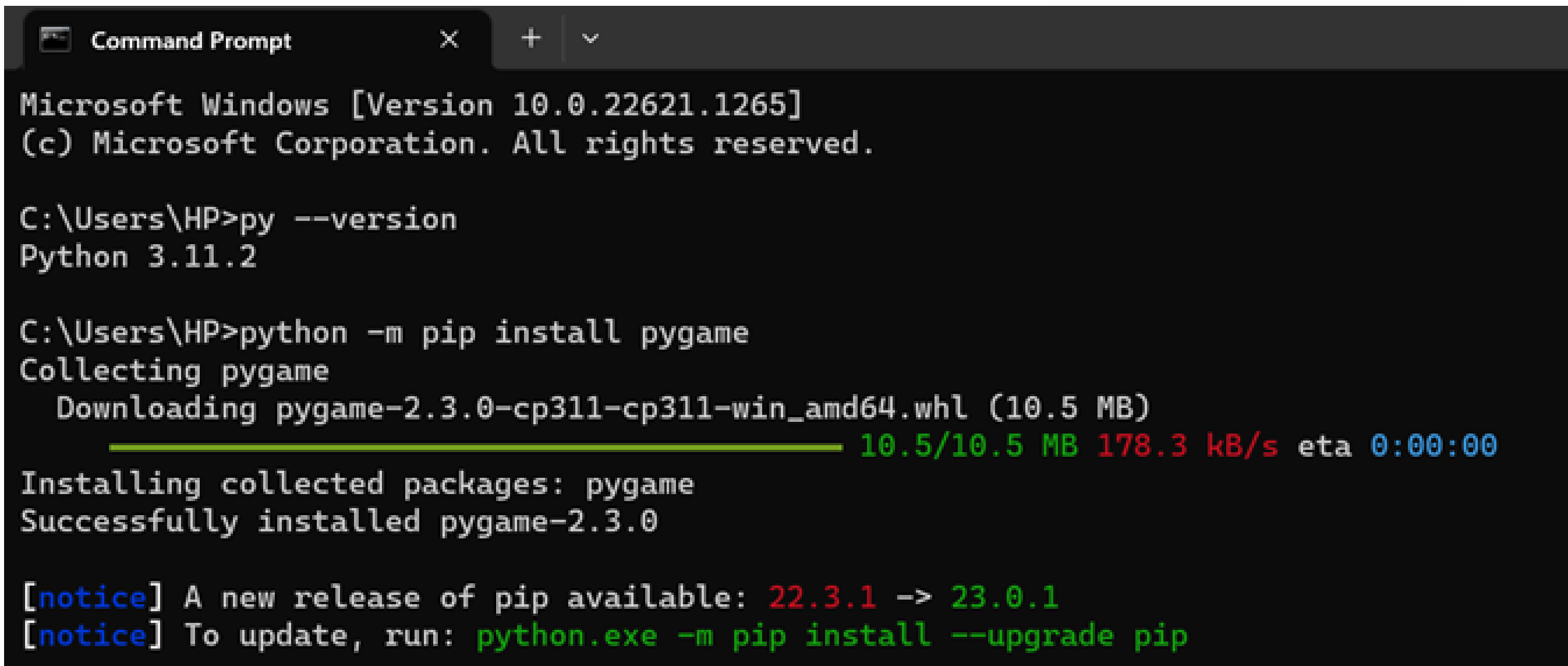
C:\Users\HP>python --version
Python 3.11.2
```

Cek python

```
python --version
```

Install Pygame di Command Prompt dengan command

```
python -m pip install pygame
```



```
Command Prompt
Microsoft Windows [Version 10.0.22621.1265]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>py --version
Python 3.11.2

C:\Users\HP>python -m pip install pygame
Collecting pygame
  Downloading pygame-2.3.0-cp311-cp311-win_amd64.whl (10.5 MB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 10.5/10.5 MB 178.3 kB/s eta 0:00:00
Installing collected packages: pygame
Successfully installed pygame-2.3.0

[notice] A new release of pip available: 22.3.1 -> 23.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

```
python.exe -m pip install -upgrade pip
```

```
Command Prompt
File "C:\Users\HP\AppData\Local\Programs\Python\Python311\Lib\site-packages\pip\_vendor\urllib3\response.py", line 62
    data = self.read(amt=amt, decode_content=decode_content)
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
File "C:\Users\HP\AppData\Local\Programs\Python\Python311\Lib\site-packages\pip\_vendor\urllib3\response.py", line 55
    with self._error_catcher():
File "C:\Users\HP\AppData\Local\Programs\Python\Python311\Lib\contextlib.py", line 155, in __exit__
    self.gen.throw(typ, value, traceback)
File "C:\Users\HP\AppData\Local\Programs\Python\Python311\Lib\site-packages\pip\_vendor\urllib3\response.py", line 40
    atcher
        raise ReadTimeoutError(self._pool, None, "Read timed out.")
pip._vendor.urllib3.exceptions.ReadTimeoutError: HTTPSConnectionPool(host='files.pythonhosted.org', port=443): Read timed out

[notice] A new release of pip available: 22.3.1 -> 23.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\HP>python.exe -m pip install --upgrade pip
Requirement already satisfied: pip in c:\users\hp\appdata\local\programs\python\python311\lib\site-packages (22.3.1)
Collecting pip
  Downloading pip-23.0.1-py3-none-any.whl (2.1 MB)
    ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 2.1/2.1 MB 333.1 kB/s eta 0:00:00
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 22.3.1
    Uninstalling pip-22.3.1:
      Successfully uninstalled pip-22.3.1
Successfully installed pip-23.0.1

C:\Users\HP>
```

# Membuat Repository baru dalam GitHub

## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner \*



Repository name \*

/ pythonNetdev23\_pythonkloter3p. ✓

Great repository names are short and memorable. Need inspiration? How about [animated-octo-train?](#)

Description (optional)

☒  **Public**

Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ **Add a README file**

This is where you can write a long description for your project. [Learn more.](#)

Membuat Projects di dalam GitHub dengan Menambahkan Anggota Kelompok dan membuat branch sesuai jumlah tugas dan kerjakan tugas pada branch yang terpisah.

Tugas Python Kloter 3 NetDev

View 1

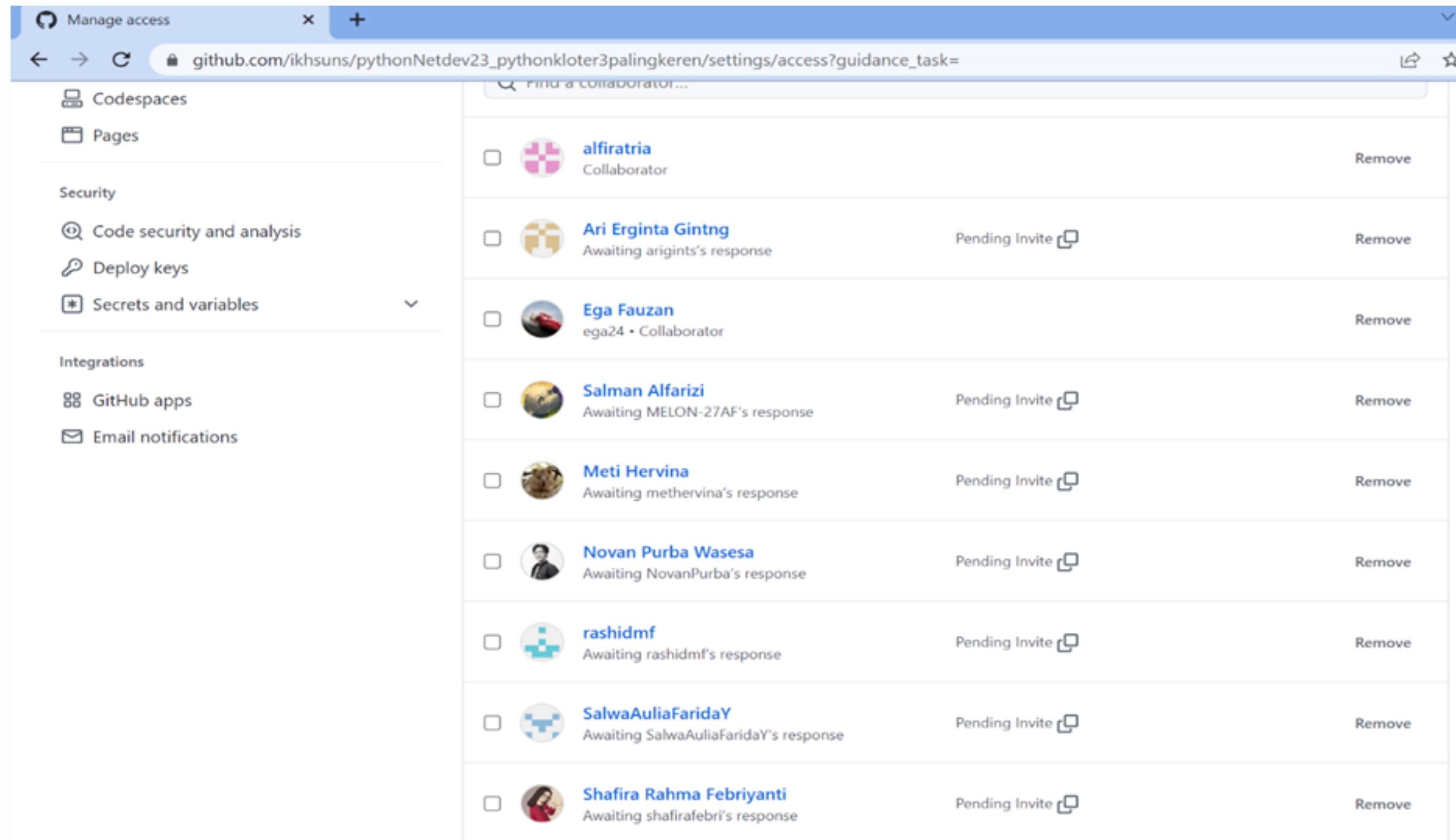
View 2

+ New view

	Title	Assignees	Status	
1	• membuat method cekSaldo() #4	ikhsuns	TASK 1 DONE	
2	• membuat method tambah() kurang() #5	alfiratria	TASK 1 DONE	
3	• membuat method transfer() setor() #6	ega24	TASK 1 DONE	
4	• konfigurasi layar tampilan #7	alfiratria	TASK 2 DONE	
5	• konfigurasi objek gjb #8	ega24	TASK 2 DONE	
6	• gambar objeknya #13	alfiratria and ikhsuns	TASK 2 DONE	
7	• buat objek namanya robin #10	alfiratria	IN PROGRESS	
8	• si robin mau cek nama sama cek saldo #9	ikhsuns	IN PROGRESS	
9	• bikin waktu simulasinya keliatan #14	alfiratria and ikhsuns	TASK 2	
10	• bikin looping, handle event #12	ega24	IN PROGRESS	
11	• si robin mau transfer sama setor tunai #11	ega24	TASK 1	
+ You can use <span>Control + Space</span> to add an item				

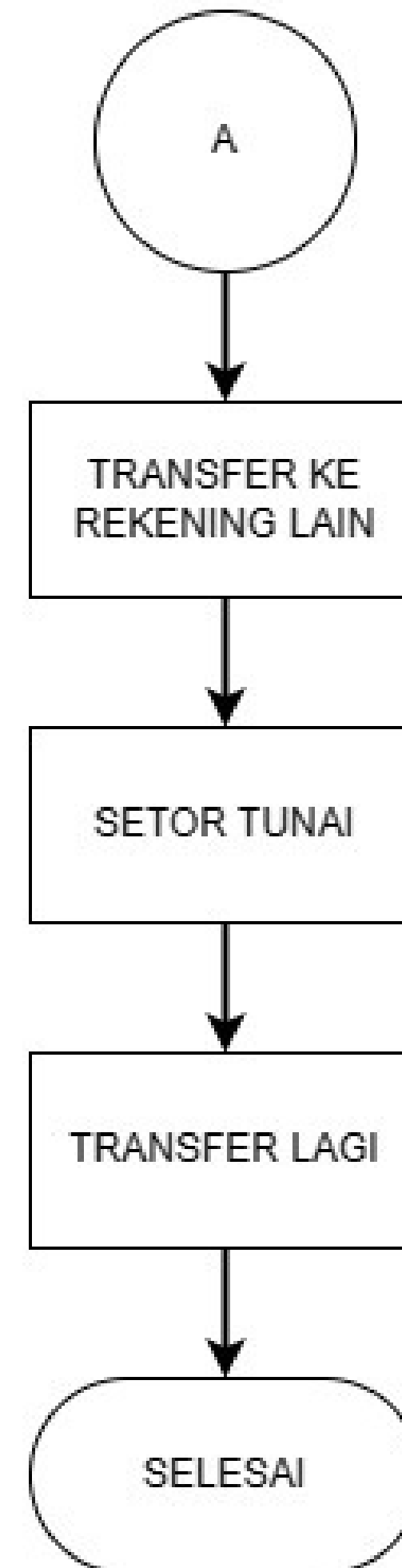


Menambahkan Collaborator Adaptive Network Lab Members di dalam Projects Undang seluruh anggota kelompok dan asisten menjadi collaborator



# TUGAS 1

## ATM OOP



C: > Users > HP > Documents > Adaptive NetDev > TUGAS PYTHON KLOTER 3.py > ...

```
1  ## MEMBUAT PROGRAM BANK ATM OOP##
2
3  class Bank:
4
5      def __init__(self, nama):
6          self.nama = nama
7          self.saldo = 1000000
8
9      def cekSaldo(self):
10         print("Saldo Nasabah Sebesar Rp" + str(self.saldo))
11
12     def kurangSaldo(self, tunai):
13         self.saldo -= tunai
14
15     def tambahSaldo(self, tunai):
16         self.saldo += tunai
17
18     def transferSaldo(self, tunai):
19         if (self.saldo >= tunai):
20             self.kurangSaldo(tunai)
21         else :
22             print("Maaf Saldo " + self.nama + " Tidak Mencukupi")
23
24     def setorSaldo(self, tunai):
25         self.tambahSaldo(tunai)
26         print("Saldo " + self.nama + " Telah Bertambah")
27         self.cekSaldo()
28
29
```

```
29
30  orang1 = Bank("Robin")
31
32  print("Nama Nasabah adalah " + orang1.nama)
33  Bank.cekSaldo(orang1)
34
35  print("Robin Melakukan Transaksi Transfer Rp700.000 ke Rekening Lain")
36  Bank.transferSaldo(orang1, 700000)
37  Bank.cekSaldo(orang1)
38
39  print("Robin Melakukan Transaksi Setor Tunai Rp100.000 ke Rekening Lain")
40  Bank.setorSaldo(orang1, 100000)
41  Bank.cekSaldo(orang1)
42
43  print("Robin Melakukan Transaksi Transfer Rp500.000 ke Rekening Lain")
44  Bank.transferSaldo(orang1, 500000)
45  Bank.cekSaldo(orang1)
46
```

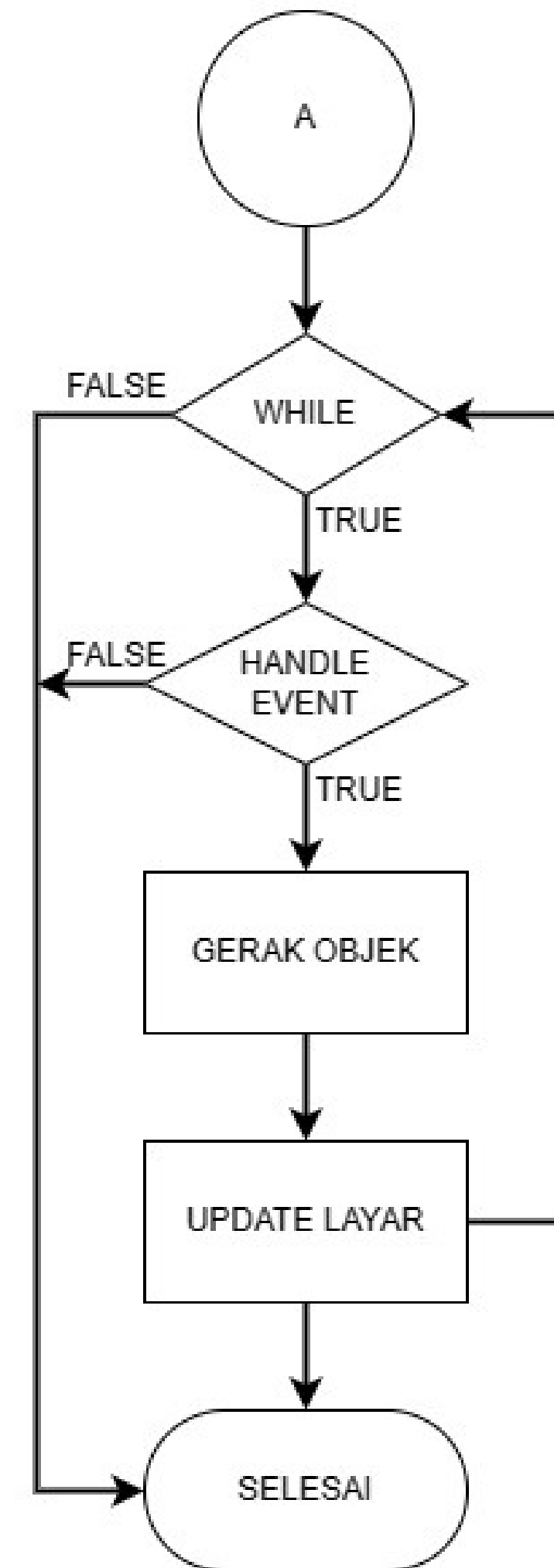
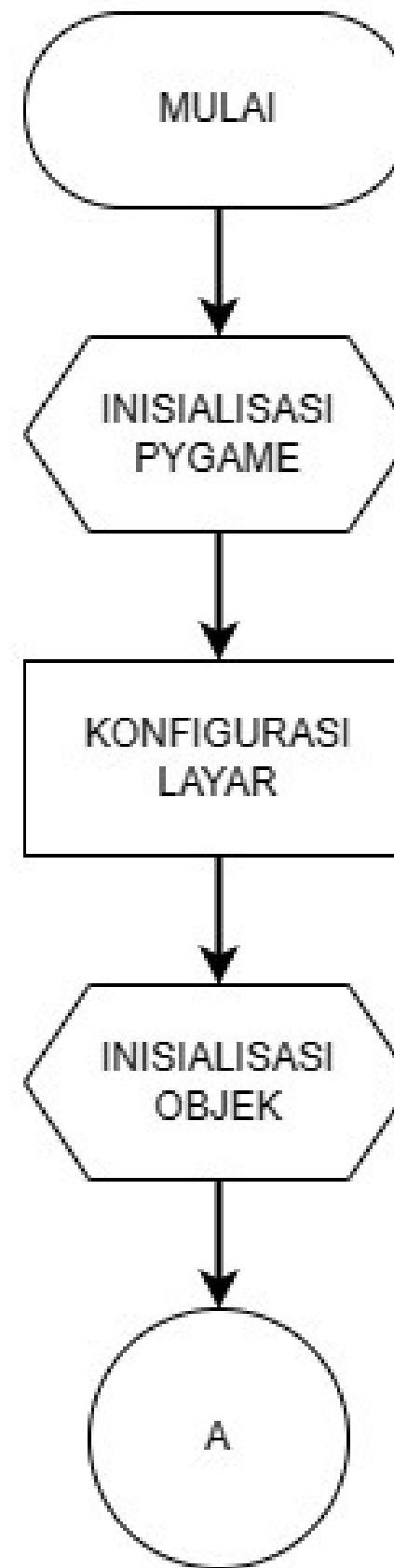
# RUN PYTHON CODE / FILE :

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

PS C:\Users\HP> & C:/Users/HP/AppData/Local/Programs/Python/Python311/python.exe "c:/Users/HP/Documents/Adaptive NetDev/TUGAS PYTHON KLOTER 3.py"
Nama Nasabah adalah Robin
Saldo Nasabah Sebesar Rp1000000
Robin Melakukan Transaksi Transfer Rp700.000 ke Rekening Lain
Saldo Nasabah Sebesar Rp300000
Robin Melakukan Transaksi Setor Tunai Rp100.000 ke Rekening Lain
Saldo Robin Telah Bertambah
Saldo Nasabah Sebesar Rp400000
Saldo Nasabah Sebesar Rp400000
Robin Melakukan Transaksi Transfer Rp500.000 ke Rekening Lain
Maaf Saldo Robin Tidak Mencukupi
Saldo Nasabah Sebesar Rp400000
PS C:\Users\HP>
```

# TUGAS 2

## GJB





C: > Users > HP > Documents > Adaptive NetDev > 📁 game gerak jatuh bebas.py > ...

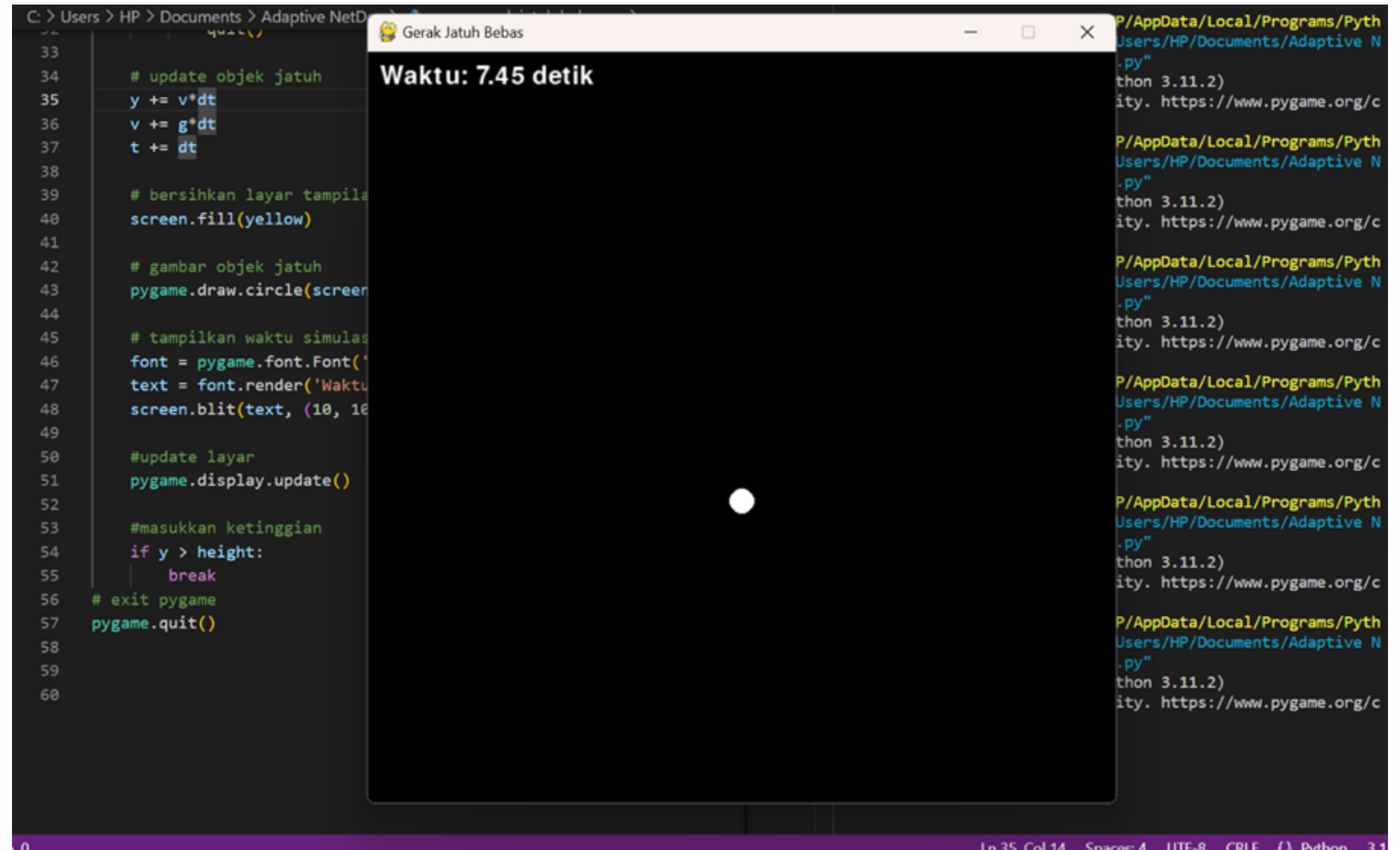
```
1  #TUGAS GJB#
2  #import pygame dan math
3  import pygame
4  import math
5
6  #inisiliasi pygame nya dulu, jika belum install pygame, pergi ke cmd python -m pip install pygame
7  pygame.init()
8
9
10 #konfigurasi tampilan layar game
11 width, height = 600, 600
12 screen = pygame.display.set_mode((width, height))
13 pygame.display.set_caption("Gerak Jatuh Bebas")
14
15 #masukkan format warna
16 pink = (255, 255, 255)
17 yellow = (0, 0, 0)
18
19 #konfigurasi objek gerak jatuh bebas
20 x, y = 300, 88 # ketinggian awal
21 v = 0 # kecepatan awal
22 g = 9.8 # gravitasi
23 t = 0 # waktu awal
24 dt = 0.01 # delta waktu
25
```

```
26 #loop 1
27 while True:
28     #handle event
29     for event in pygame.event.get():
30         if event.type == pygame.QUIT:
31             pygame.quit()
32             quit()
33
34     # update objek jatuh
35     y += v*dt
36     v += g*dt
37     t += dt
38
39     # bersihkan layar tampilan
40     screen.fill(yellow)
41
42     # gambar objek jatuh
43     pygame.draw.circle(screen, pink, (int(x), int(y)), 10)
44
45     # tampilkan waktu simulasi
46     font = pygame.font.Font('freesansbold.ttf', 20)
47     text = font.render('Waktu: {:.2f} detik'.format(t), True, pink)
48     screen.blit(text, (10, 10))
49
50     #update layar
51     pygame.display.update()
52
53     #masukkan ketinggian
54     if y > height:
55         break
56 # exit pygame
57 pygame.quit()
```



# RUN PYTHON CODE / FILE

Hasil : Didapat Simulasi jatuh bebas dengan kecepatan yang berubah-ubah dengan Diketahui ketinggian awal 88 m. dan Menampilkan perhitungan waktu simulasi dalam visualisasi Pygame



```
C:\Users\HP\Documents> Adaptive NetD
33
34     # update objek jatuh
35     y += v*dt
36     v += g*dt
37     t += dt
38
39     # bersihkan layar tampilan
40     screen.fill(yellow)
41
42     # gambar objek jatuh
43     pygame.draw.circle(screen, black, (500, y), 50)
44
45     # tampilkan waktu simulasi
46     font = pygame.font.Font('freesansbold.ttf', 32)
47     text = font.render('Waktu: ' + str(t), True, black)
48     screen.blit(text, (10, 10))
49
50     #update layar
51     pygame.display.update()
52
53     #masukkan ketinggian
54     if y > height:
55         break
56 # exit pygame
57 pygame.quit()
58
59
60
```

Gerak Jatuh Bebas

Waktu: 7.45 detik

Ln 35 Col 14 Spaces: 4 UTF-8 CRLF Python 3.11.2

**THANKS**