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DOKUMEN 3D GAME PANDA WALK

Langkah Penginstalan

- Install Python(3.9.9)

Pergi ke website python “<https://www.python.org/downloads/>”



Download python dan jalankan instalasinya.

- Install Panda3D

Pergi ke Command Prompt dan ketik “pip install panda3d”

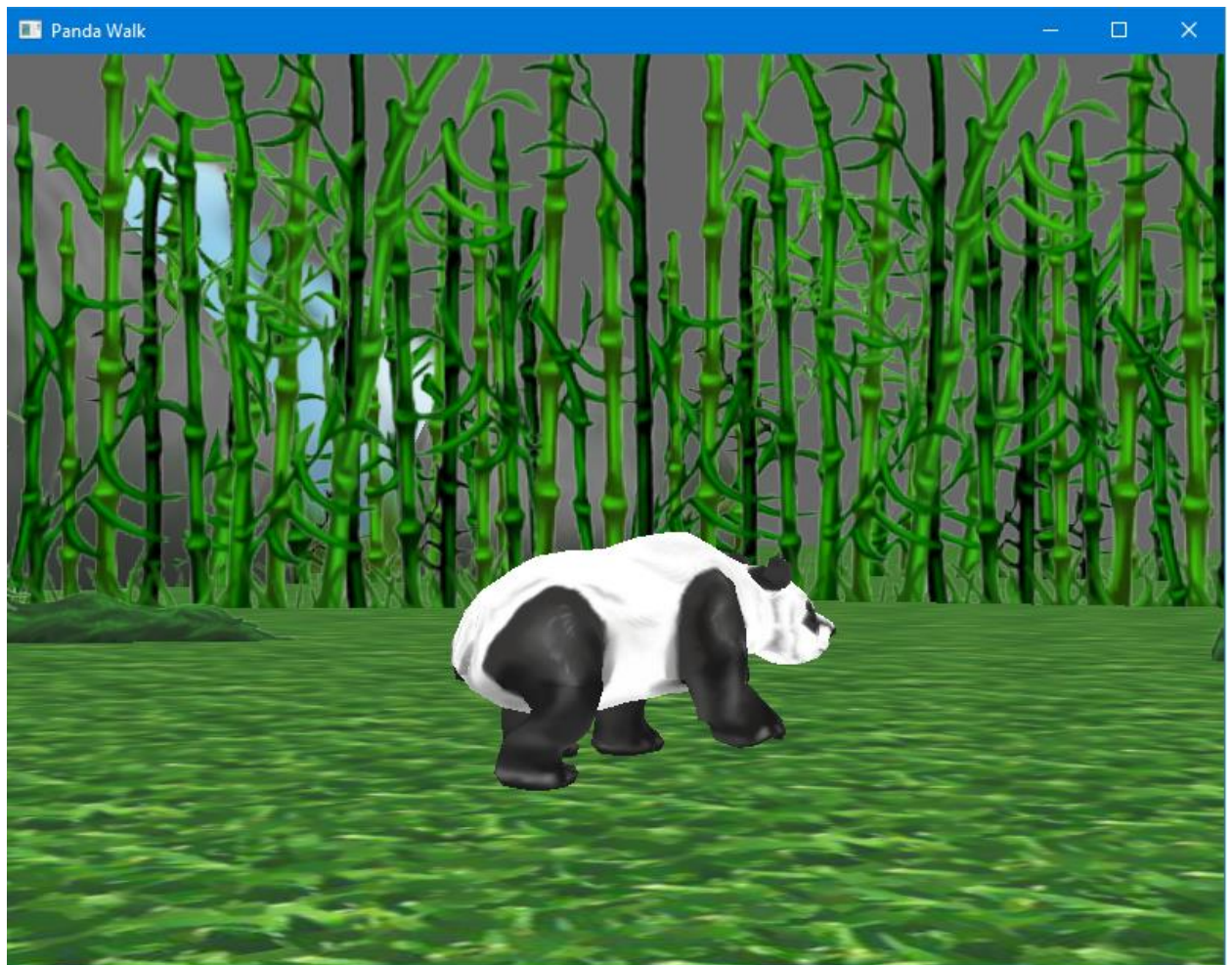
Source Code dan Hasil Run

- Buka file main.py pada code editor

```
main.py - C:\Panda3D-1.10.10-x64\tugas\UASGameDev\main.py (3.9.9)
File Edit Format Run Options Window Help
1 from math import pi, sin, cos
2
3 from direct.showbase.ShowBase import ShowBase
4 from direct.task import Task
5 from direct.actor.Actor import Actor
6 from pandac.PandaModules import WindowProperties
7 pro = WindowProperties()
8 pro.setTitle('Panda Walk')
9
10 class MyApp(ShowBase):
11
12     def __init__(self):
13         ShowBase.__init__(self)
14         base.win.requestProperties(pro)
15         self.scene = self.loader.loadModel("models/environment")
16         self.scene.reparentTo(self.render)
17
18         self.scene.setScale(0.25, 0.25, 0.25)
19         self.scene.setPos(-8, 42, 0)
20
21         self.taskMgr.add(self.spinCameraTask, "SpinCameraTask")
22         self.pandaActor = Actor("models/panda-model", {"walk" : "models/panda-walk4"})
23         self.pandaActor.setScale(0.005, 0.005, 0.005)
24         self.pandaActor.reparentTo(self.render)
25
26         self.accept('escape', self.quit)
27         self.accept("arrow_up", self.Move)
28         self.accept("arrow_up-repeat", self.Move)
29         self.accept("arrow_up-up", self.stopMove)
30         self.accept("arrow_right", self.Move2)
31         self.accept("arrow_left", self.Move1)
32
33         self.jump_speed = 0
34         self.gravity_force = 9.8
35         self.jump_status = False
36         self.accept("space", self.set_jump)
37         self.taskMgr.add(self.gravity, "gravity")
38
39     def Move(self):
40         self.pandaActor.setY(self.pandaActor, -30)
41         self.pandaActor.setPlayRate(2, "walk")
```

```
main.py - C:\Panda3D-1.10.10-x64\tugas\UASGameDev\main.py (3.9.9)
File Edit Format Run Options Window Help
42     walk = self.pandaActor.getAnimControl("walk")
43     if not walk.isPlaying():
44         self.pandaActor.loop("walk")
45
46     def stopMove(self):
47         self.pandaActor.stop("walk")
48
49     def Move2(self):
50         self.pandaActor.setH(self.pandaActor, -45)
51
52     def Move1(self):
53         self.pandaActor.setH(self.pandaActor, 45)
54
55     def set_jump(self):
56         if self.jump_status == False:
57             self.jump_speed = 4
58             self.jump_status = True
59             self.pandaActor.setY(self.pandaActor, -300)
60
61     def gravity(self, task):
62         self.pandaActor.setZ(self.pandaActor.getZ() + self.jump_speed * globalClock.getDt())
63         if self.pandaActor.getZ() > 0:
64             self.jump_speed = self.jump_speed - self.gravity_force * globalClock.getDt()
65         if self.pandaActor.getZ() < 0:
66             self.pandaActor.setZ(0)
67             self.jump_speed = 0
68             self.jump_status = False
69         return Task.cont
70
71     def spinCameraTask(self, task):
72         angleDegrees = task.time * 8.0
73         angleRadians = angleDegrees * (pi / 180.0)
74         self.camera.setPos(20 * sin(angleRadians), -20 * cos(angleRadians), 3)
75         self.camera.setHpr(angleDegrees, 0, 0)
76         return Task.cont
77
78     def quit(self):
79         sys.exit()
80
81 app = MyApp()
82 app.run()
```

■ Hasil Run



Tombol-tombol yang digunakan :

- **Tombol** [↑] : Digunakan untuk menjalankan panda ke depan
- **Tombol** [→] : Digunakan untuk memutar badan panda ke kanan
- **Tombol** [←] : Digunakan untuk memutar badan panda ke kiri
- **Tombol** [Space] : Digunakan untuk melakukan aksi loncat