

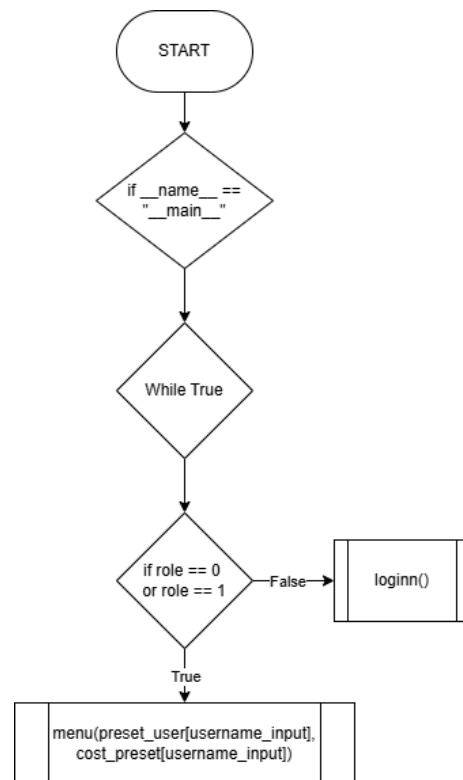
**LAPORAN PRAKTIKUM**  
**POSTTEST (8)**  
**ALGORITMA PEMROGRAMAN DASAR**



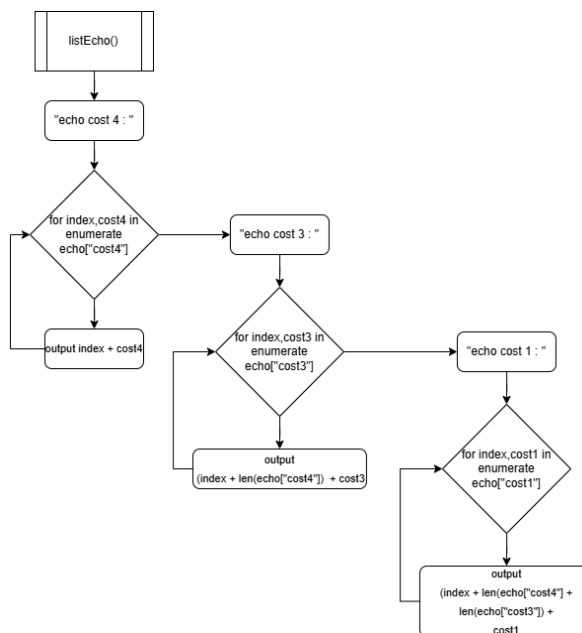
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**Kelas (A2 '25)**

**PROGRAM STUDI INFORMATIKA**  
**UNIVERSITAS MULAWARMAN**  
**SAMARINDA**  
**2025**

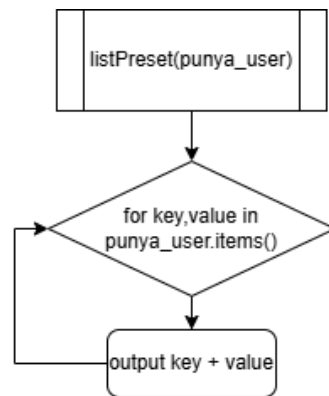
## 1. Flowchart



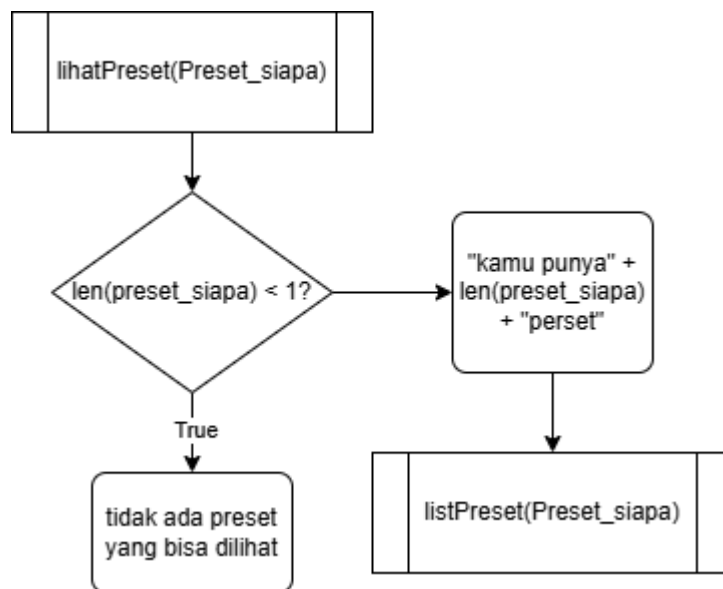
gambar 1.1 flowchart perulangan fungsi



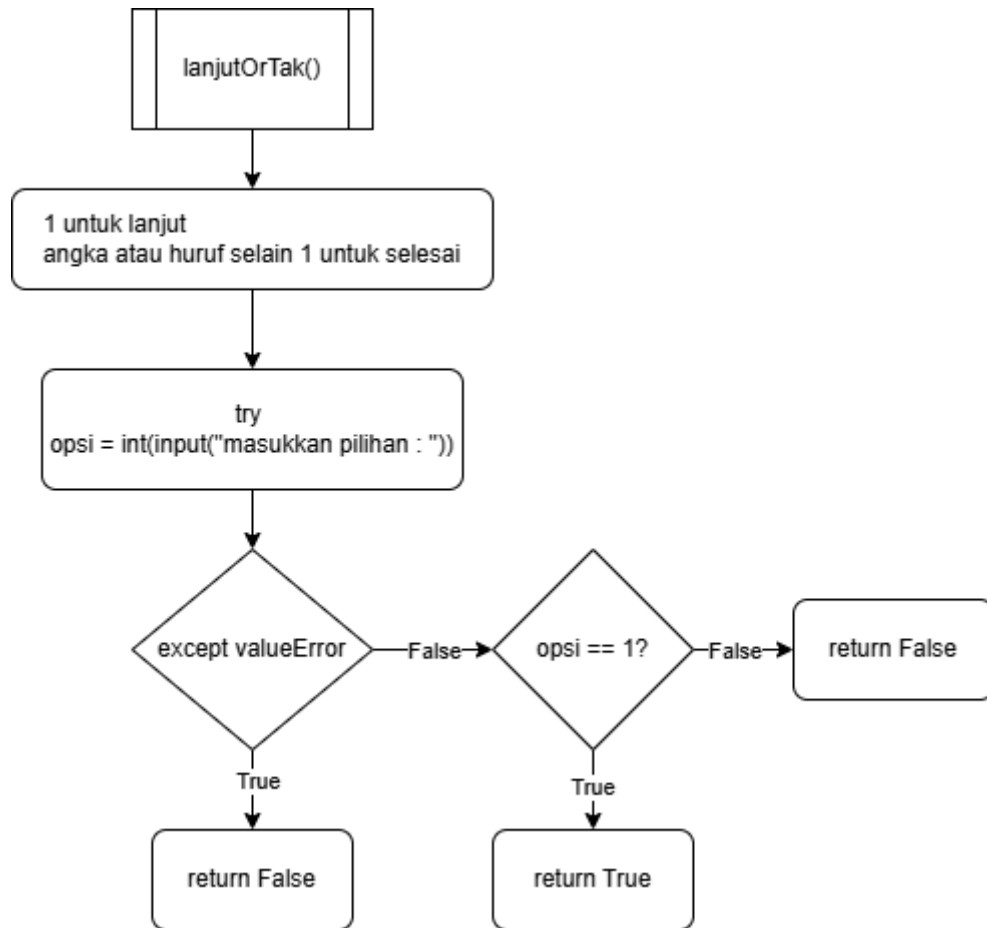
flowchart 1.2 flowchart fungsi untuk membuat list echo



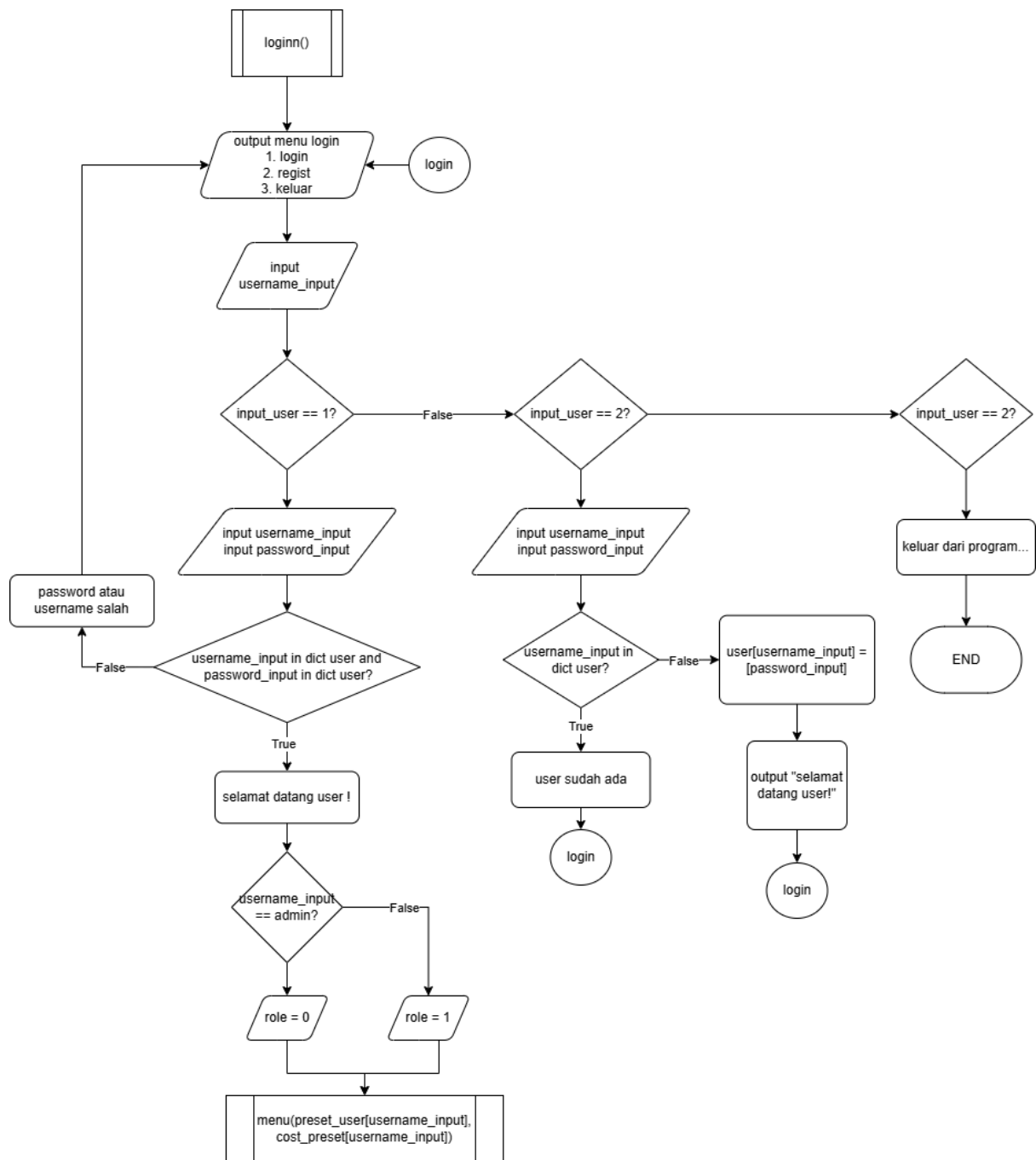
flowchart 1.3 flowchart fungsi menampilkan preset user



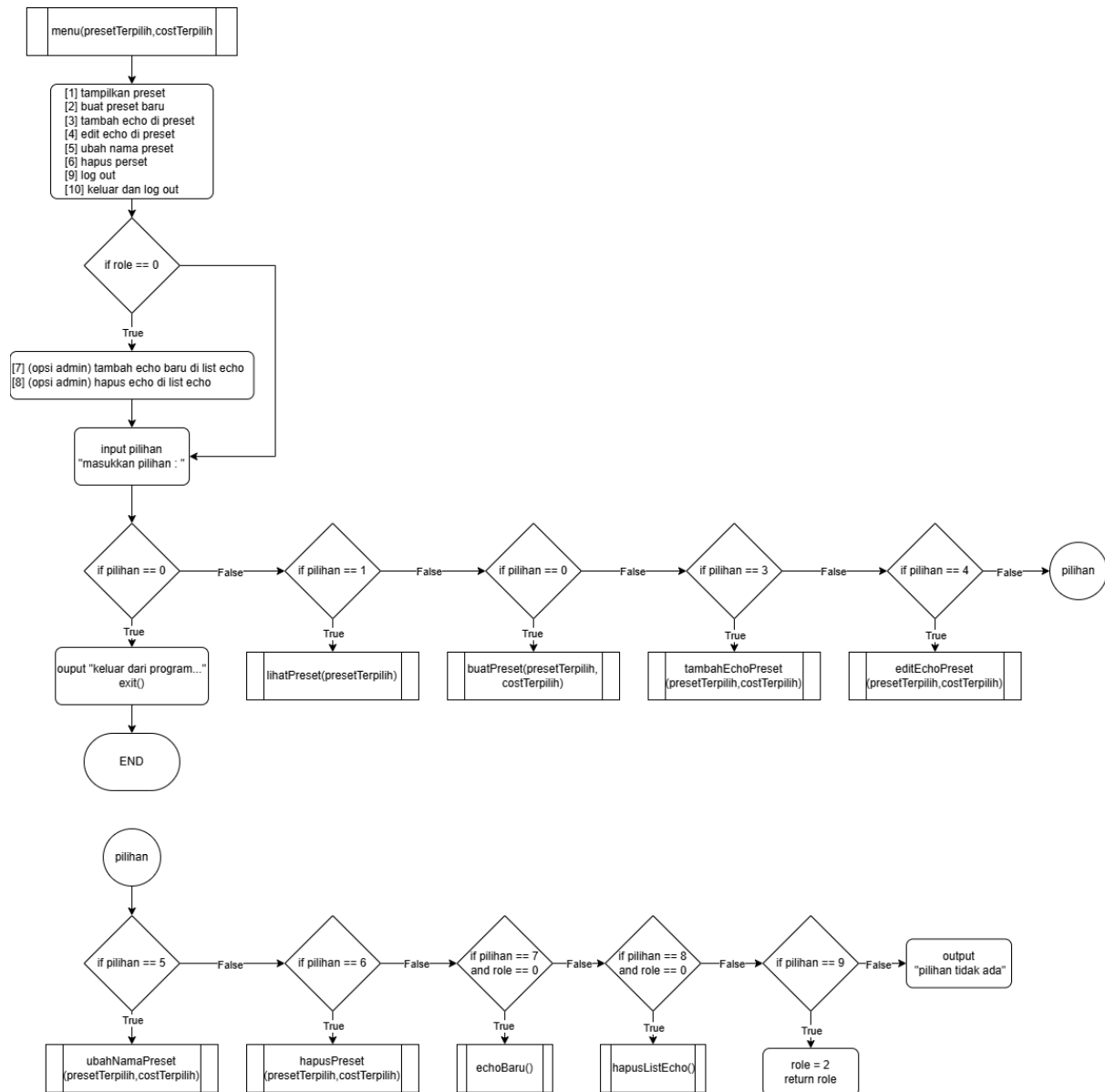
flowchart 1.4 flowchart fungsi menampilkan preset user dan menghitung jumlahnya



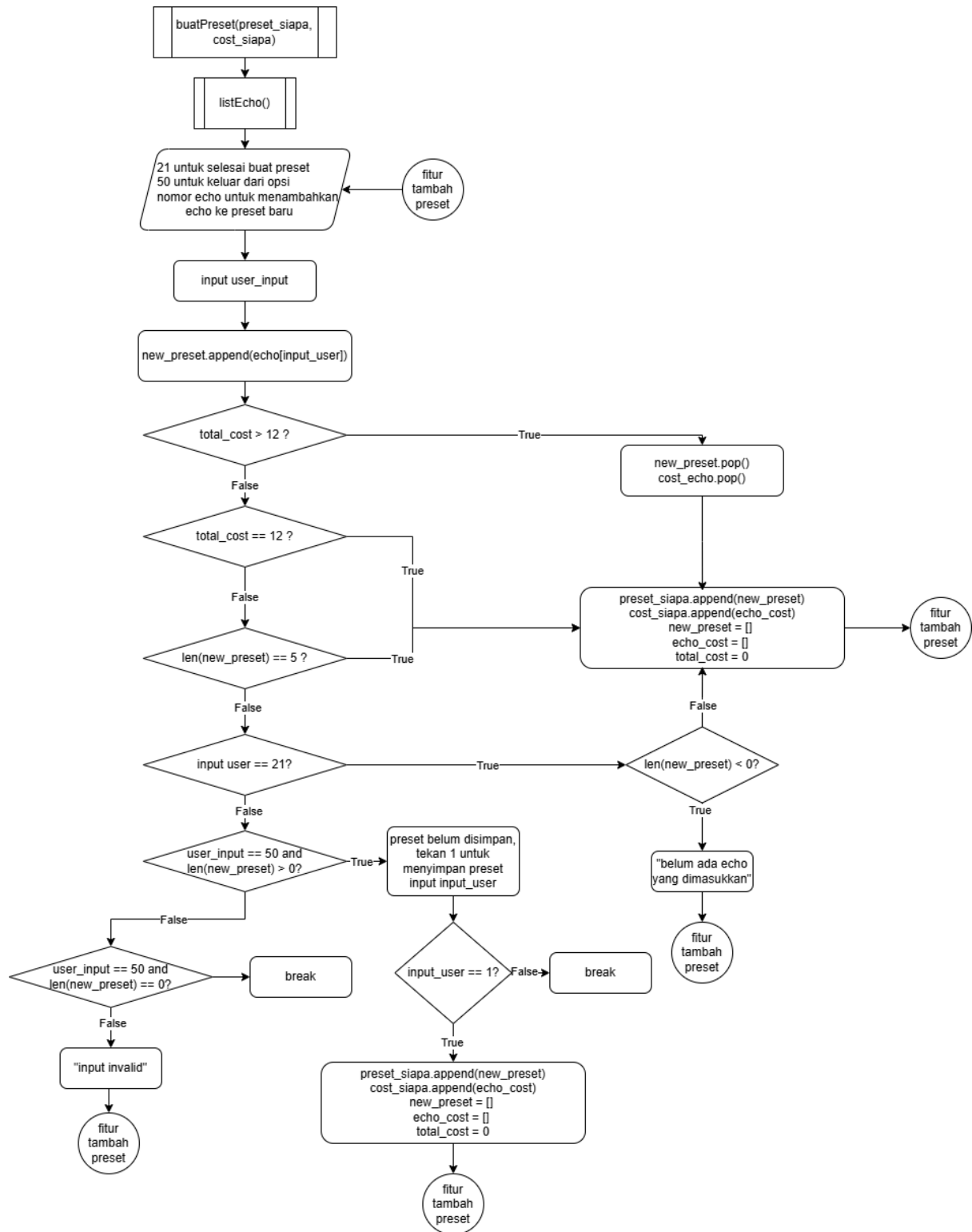
flowchart 1.5 flowchart fungsi opsi user



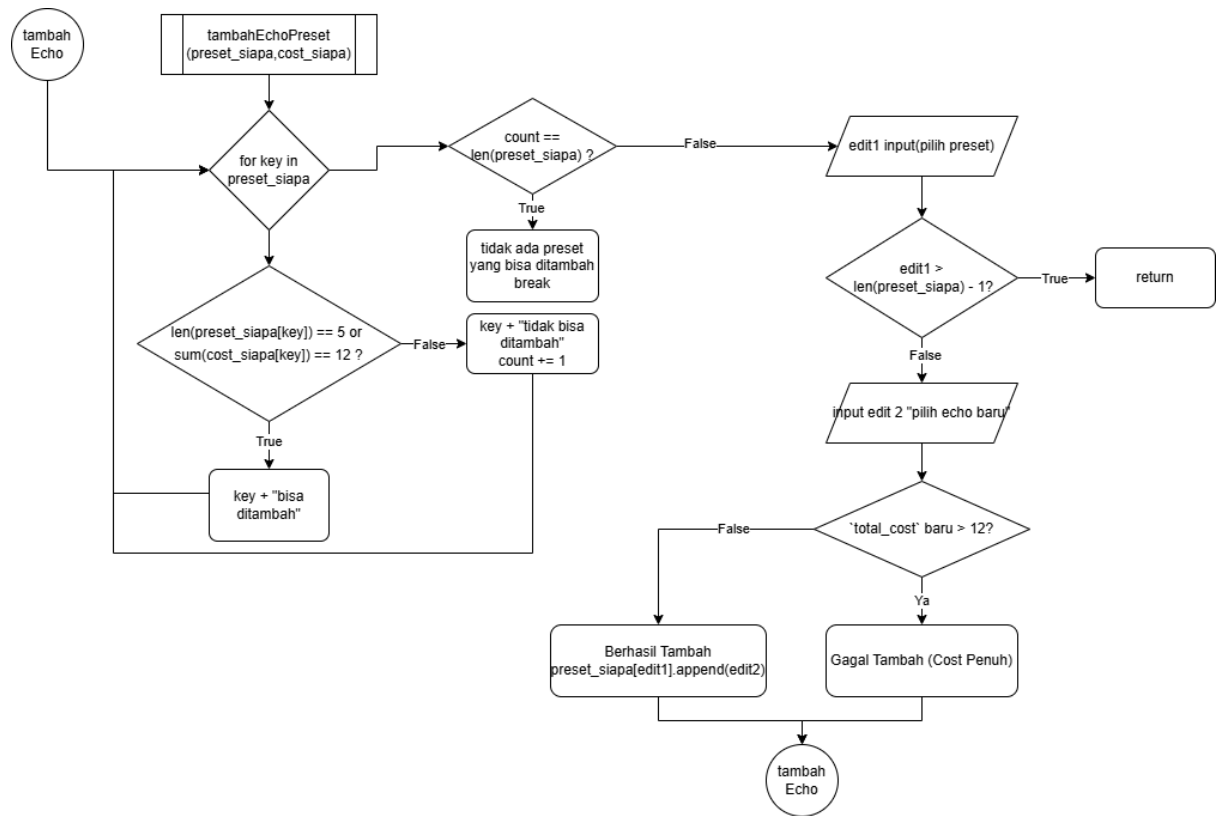
flowchart 1.6 flowchart fungsi login dan registrasi



flowchart 1.7 flowchart fungsi user

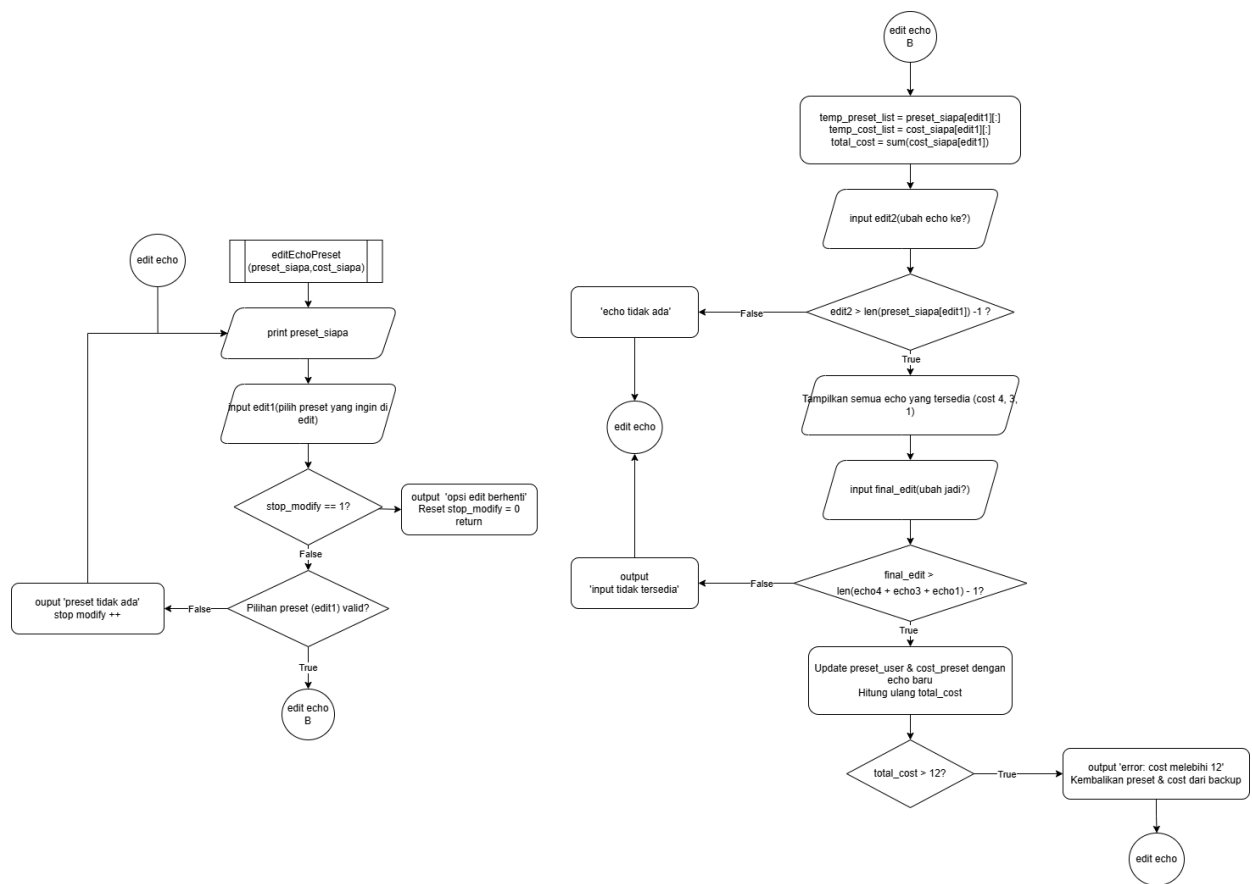


flowchart 1.8 flowchart fungsi membuat preset baru

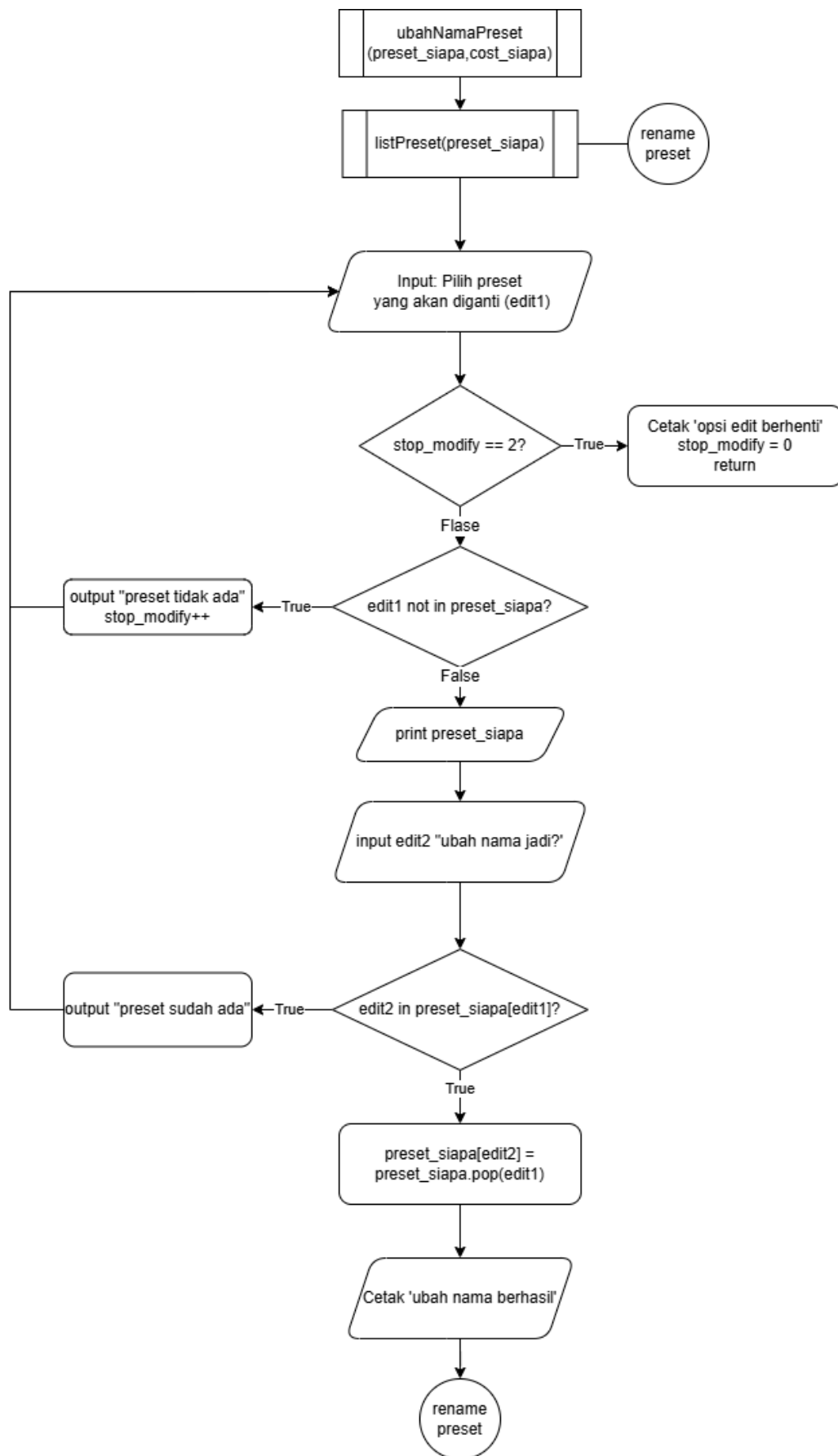


flowchart 1.9 fungsi tambah echo ke preset

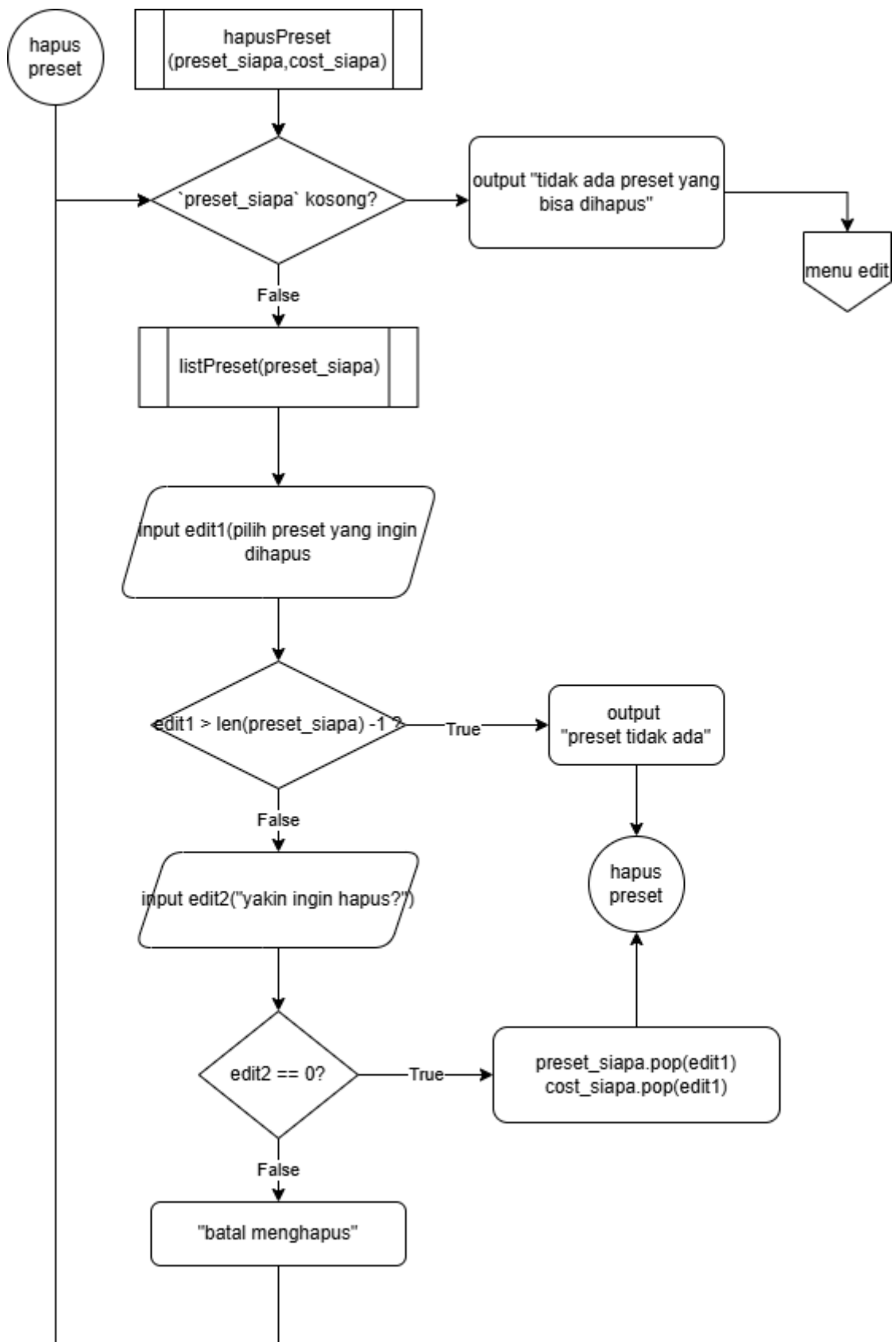




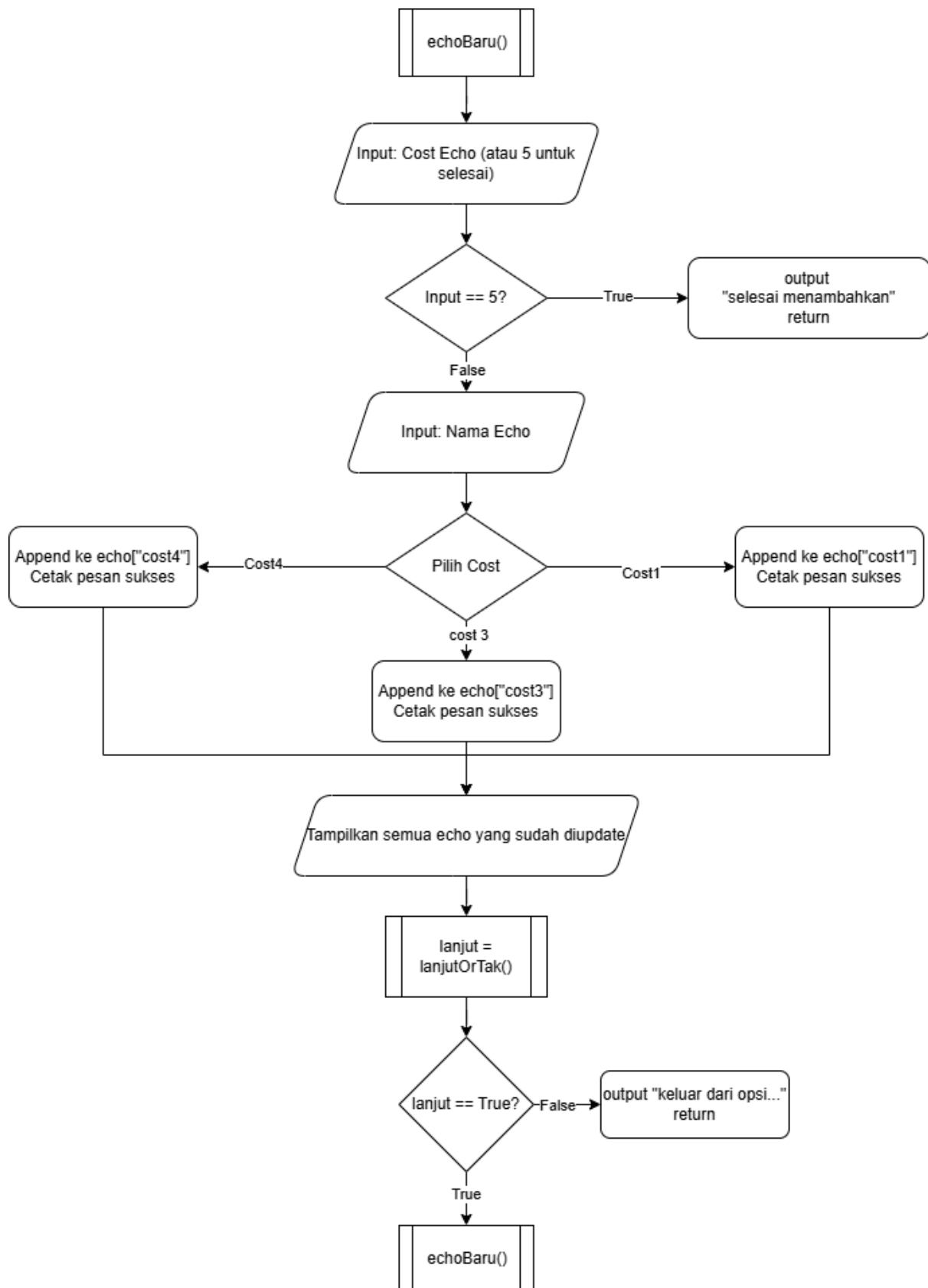
flowchart 1.10 fungsi edit echo di preset



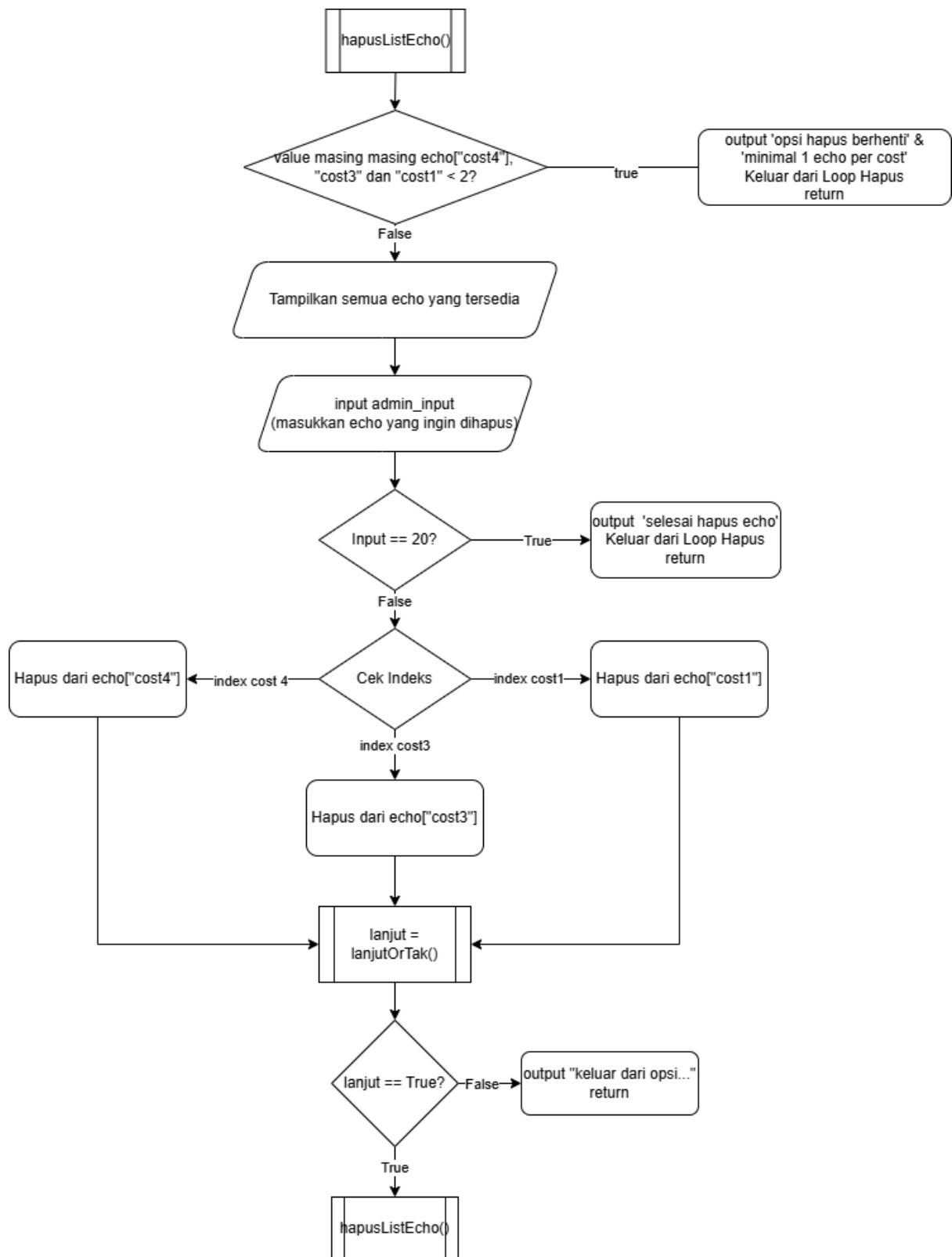
flowchart 1.11 fungsi ubah nama preset



flowchart 1.12 fungsi hapus preset



flowchart 1.13 fungsi tambah echo (opsi admin)



flowchart 1.14 fungsi hapus echo(opsi admin)

## 2. Deskripsi Singkat Program

posttest ini adalah lanjutan dari posttest sebelumnya, berisi posttest 7 yang diperbaiki, dibuat terpisah setiap fungsi, dan terdapat module pretty table untuk outputnya

## 3. Source Code

### A. fitur utama user

disini user bisa menambahkan echo nya ke preset sesuai keinginan dan syarat syaratnya (cost echo tidak lebih dari 12 dan slot preset belum terisi semua(slot preset masing masing terdapat 5))

### Source Code:

```
def buatPreset(preset_siapa, cost_siapa) :  
  
    variable.total_cost = 0  
    listEcho()  
    while True :  
        print("21 untuk selesai buat preset")  
        print("50 untuk selesai")  
        print("nomor echo untuk menambahkan echo ke preset baru")  
        try:  
            input_user = int(input("masukkan pilihan : "))  
            print("\n")  
        except ValueError :  
            print("input tak valid")  
  
        if input_user <= len(echo["cost4"]) - 1 :  
            variable.new_preset.append(echo["cost4"][input_user])  
            variable.echo_cost.append(4)  
            variable.total_cost += 4  
  
        elif input_user <= len(echo["cost4"] + echo["cost3"]) - 1 :  
            variable.new_preset.append(echo["cost3"][input_user -  
len(echo["cost3"])]])  
            variable.echo_cost.append(3)  
            variable.total_cost += 3
```

```

        elif input_user <= len(echo["cost4"] + echo["cost3"] +
echo["cost1"]) - 1 :
            variable.new_preset.append(echo["cost1"][input_user -
len(echo["cost4"] + echo["cost3"])]])
            variable.echo_cost.append(1)
            variable.total_cost += 1

    elif input_user == 21:

        if len(variable.new_preset) < 1 and len(variable.echo_cost) < 1:
            os.system('cls' if os.name == 'nt' else 'clear')
            listEcho ()
            print("tidak ada echo yang dimasukkan")

        else :
            os.system('cls' if os.name == 'nt' else 'clear')
            cost_siapa[f"new preset {len(preset_siapa)}"] =
variable.echo_cost
            preset_siapa[f"new preset {len(preset_siapa)}"] =
variable.new_preset
            listEcho()
            print("preset dibuat")
            variable.new_preset = []
            variable.echo_cost = []
            variable.total_cost = 0

    elif input_user == 50 and len(variable.new_preset) > 0 :
        input_user = int(input("kamu punya preset belum disimplan, tekan
1 untuk menyimpan "))
        if input_user == 1 :
            cost_siapa[f"new preset {len(preset_siapa)}"] =
variable.echo_cost
            preset_siapa[f"new preset {len(preset_siapa)}"] =
variable.new_preset

            variable.new_preset = []
            variable.echo_cost = []
            variable.total_cost = 0
        else :
            variable.new_preset = []
            variable.echo_cost = []
            variable.total_cost = 0
    os.system('cls' if os.name == 'nt' else 'clear')
    print("buat preset selesai ")
    print("keluar dari opsi...")
    break

```

```

elif input_user == 50 and len(variable.new_preset) == 0 :
    os.system('cls' if os.name == 'nt' else 'clear')
    print("keluar dari opsi...")
    break

else :
    print("input salah")

if variable.total_cost > 12:
    os.system('cls' if os.name == 'nt' else 'clear')
    listEcho()
    print("cost echo yang kamu masukkan sudah lebih dari 12")
    variable.new_preset.pop()
    variable.echo_cost.pop()
    cost_siapa[f"new preset {len(preset_siapa)}"] =
variable.echo_cost
    preset_siapa[f"new preset {len(preset_siapa)}"] =
variable.new_preset
    variable.new_preset = []
    variable.echo_cost = []
    variable.total_cost = 0

elif variable.total_cost == 12 :
    os.system('cls' if os.name == 'nt' else 'clear')
    listEcho()
    print("donee wak udah 12")
    cost_siapa[f"new preset {len(preset_siapa)}"] =
variable.echo_cost
    preset_siapa[f"new preset {len(preset_siapa)}"] =
variable.new_preset
    variable.new_preset = []
    variable.echo_cost = []
    variable.total_cost = 0

elif len(variable.new_preset) == 5:
    os.system('cls' if os.name == 'nt' else 'clear')
    listEcho()
    print("echo kamu sudah 5")
    cost_siapa[f"new preset {len(preset_siapa)}"] =
variable.echo_cost
    preset_siapa[f"new preset {len(preset_siapa)}"] =
variable.new_preset

    variable.new_preset = []
    variable.echo_cost = []
    variable.total_cost = 0

```



## B. Fitur edit user

user bisa mengubah atau menambah echo pada preset, bisa juga mengubah nama preset

```
def tambahEchoPreset(preset_siapa, cost_siapa) :

    stop_modify = 0
    temporary_cost = 0
    count = 0

    if len(preset_siapa) < 1 :
        print("belum ada preset yang ditampilkan")
        return

    while True :

        table = PrettyTable()
        table.field_names = ["nama preset", "status preset"]

        for key in preset_siapa:

            if len(preset_siapa[key]) == 5 or sum(cost_siapa[key]) == 12:
                table.add_row([key, "tidak bisa ditambah"])
                count += 1

            else :
                table.add_row([key, "bisa ditambah"])

        print(table)

        if len(preset_siapa) == count :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("tidak ada preset yang bisa ditambah")
            count = 0
            break

        if stop_modify == 2:
            print("opsi edit berhenti")
            stop_modify = 0
            os.system('cls' if os.name == 'nt' else 'clear')
            break

        print("masukkan nama echo yang ingin di edit")
        print("tekan bebas selain preset sebanyak 2 kali untuk keluar")
        edit1 = input(f"masukkan pilihan : ")

        if edit1 not in preset_siapa:
```

```

print("preset tidak ada")
stop_modify += 1

else :

    terpilih(edit1, preset_siapa[edit1])

    if len(preset_siapa[edit1]) == 5 :
        print("penambahan echo tidak valid : slot penuh")

    elif sum(cost_siapa[edit1]) == 12 :
        print("penambahan echo tidak valid : cost penuh")

    else :
        listEcho()

    try :
        edit2 = int(input("pilih echo yang dimasukkan : "))
    except ValueError :
        print("input salah")

    else :
        total_cost = sum(cost_siapa[edit1])

        if edit2 <= len(echo["cost4"]) - 1:
            preset_siapa[edit1].append(echo["cost4"][edit2])
            cost_siapa[edit1].append(4)
            total_cost += 4
            temporary_cost = 4

        elif edit2 <= len(echo["cost4"] + echo["cost3"]) - 1:
            preset_siapa[edit1].append(echo["cost3"][edit2 -
len(echo["cost3"])]])
            cost_siapa[edit1].append(3)
            total_cost += 3
            temporary_cost = 3

        elif edit2 <= len(echo["cost4"] + echo["cost3"] +
echo["cost1"]) - 1:
            preset_siapa[edit1].append(echo["cost1"][edit2 -
len(echo["cost4"] + echo["cost3"])]])
            cost_siapa[edit1].append(1)
            total_cost += 1
            temporary_cost = 1

        else :
            print("input salah")

```

```

        if total_cost > 12 :
            print("echo yang dimasukkan butuh cost lebih")
            print("gagal menambahkan")
            preset_siapa[edit1].pop()
            cost_siapa[edit1].pop()
            total_cost -= temporary_cost

        else :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("berhasil menambahkan")

#edit echo di preset
def editEchoPreset (preset_siapa, cost_siapa) :
    os.system('cls' if os.name == 'nt' else 'clear')
    if len(preset_siapa) < 1 :
        print("belum ada preset yang ditampilkan")
        return

    stop_modify = 0
    while True :

        if stop_modify == 2:
            print("opsi edit berhenti")
            stop_modify = 0
            break

        listPreset(preset_siapa)

        print("masukkan nama echo yang ingin di edit")
        print("tekan bebas selain preset sebanyak 2 kali untuk keluar")
        edit1 = input(f"masukkan pilihan : ")

        if edit1 not in preset_siapa :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("preset tidak ada")
            stop_modify += 1

        else :
            terpilih(edit1, preset_siapa[edit1])

            temp_preset_list = preset_siapa[edit1][:]
            temp_cost_list = cost_siapa[edit1][:]
            total_cost = sum(cost_siapa[edit1])
            try :
                edit2 = int(input("edit value yang ke? : "))
            except ValueError :
                print("input salah")

```

```

else :

    if edit2 > len(preset_siapa[edit1]) - 1 :
        os.system('cls' if os.name == 'nt' else 'clear')
        print("echo tidak ada")
        continue
    print("echo cost 4 : ")

    listEcho()

    try :
        final_edit = int(input(f"ubah {preset_siapa[edit1][edit2]}
jadi? : "))
    except ValueError :
        print("input salah")

    else :

        if final_edit > len(echo["cost4"] + echo["cost3"] +
echo["cost1"]) - 1 :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("input tidak tersedia")
            continue

        elif final_edit <= len(echo["cost4"]) - 1 :

            preset_siapa[edit1][edit2] = echo["cost4"][final_edit]
            total_cost -= cost_siapa[edit1][edit2]
            cost_siapa[edit1][edit2] = 4
            temporary_cost = 4

        elif final_edit <= len(echo["cost4"] + echo["cost3"]) - 1 :

            preset_siapa[edit1][edit2] = echo["cost3"][final_edit -
len(echo["cost4"])]
            total_cost -= cost_siapa[edit1][edit2]
            cost_siapa[edit1][edit2] = 3
            temporary_cost = 3

        elif final_edit <= len(echo["cost4"] + echo["cost3"] +
echo["cost1"]) - 1 :

            preset_siapa[edit1][edit2] = echo["cost1"][final_edit -
len(echo["cost3"] + echo["cost4"])]
            total_cost -= cost_siapa[edit1][edit2]
            cost_siapa[edit1][edit2] = 1
            temporary_cost = 1

        total_cost += temporary_cost

```

```

        if total_cost > 12 :
            print("error : cost sudah melebihi 12")
            preset_siapa[edit1] = temp_preset_list
            cost_siapa[edit1] = temp_cost_list

        else :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("edit echo berhasil")

#ubah nama preset
def ubahNamaPreset(preset_siapa, cost_siapa) :
    os.system('cls' if os.name == 'nt' else 'clear')
    stop_modify = 0
    if len(preset_siapa) < 1 :
        print("belum ada preset yang ditampilkan")
        return

    while True :

        listPreset(preset_siapa)

        if stop_modify == 2:
            print("opsi edit berhenti")
            stop_modify = 0
            break

        print("masukkan nama echo yang ingin di edit")
        print("tekan bebas selain preset sebanyak 2 kali untuk keluar")
        edit1 = input(f"masukkan pilihan : ")

        if edit1 not in preset_siapa :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("preset tidak ada")
            stop_modify += 1

        else :
            terpilih(edit1, preset_siapa[edit1])
            edit2 = input("ubah jadi? : ")
            if edit2 in preset_siapa :
                os.system('cls' if os.name == 'nt' else 'clear')
                print("preset dengan nama yang sama sudah ada")
            else :
                os.system('cls' if os.name == 'nt' else 'clear')
                preset_siapa[edit2] = preset_siapa.pop(edit1)
                cost_siapa[edit2] = cost_siapa.pop(edit1)
                print("ubah nama berhasil")

```

### C. Fitur hapus user

disini user bisa menghapus preset echonya

```
def hapusPreset(preset_siapa, cost_siapa) :
    stop_modify = 0
    while True :

        if len(preset_siapa) < 1:
            os.system('cls' if os.name == 'nt' else 'clear')
            print("tidak punya preset")
            return

        if stop_modify == 2:
            print("opsi hapus berhenti")
            stop_modify = 0
            break

        listPreset(preset_siapa)

        print("masukkan nama echo yang ingin di edit")
        print("tekan bebas selain preset sebanyak 2 kali untuk keluar")
        edit1 = input(f"masukkan pilihan : ")

        if edit1 not in preset_siapa :
            os.system('cls' if os.name == 'nt' else 'clear')
            print("preset tidak ada")
            stop_modify += 1
        else :
            terpilih(edit1, preset_siapa[edit1])
            edit2 = int(input("yakin ingin hapus preset?(0 untuk ya) :"))
            if edit2 == 0 :
                del preset_siapa[edit1]
                del cost_siapa[edit1]
                os.system('cls' if os.name == 'nt' else 'clear')
                print("hapus preset berhasil")
            else :
                os.system('cls' if os.name == 'nt' else 'clear')
                print("cancel penghapusan :")
```

## 5. Fitur admin

disini, admin bisa mengedit atau menghapus echo pada semua cost## opsi admin

```
def echoBaru ():
    os.system('cls' if os.name == 'nt' else 'clear')

    listEcho()
    try :
        admin_input = int(input("tambah echo cost berapa? (tekan 5 untuk jika
selesai) : "))
    except ValueError :
        print("input salah, coba lagi la")
    if admin_input == 5 :
        ("selesai menambahkan ")
        return

    admin_mod = input("masukkan nama echo : ")
    if admin_input == 4 :
        echo["cost4"].append(admin_mod)
        print(f"berhasil menambahkan {admin_mod} ke echo cost 4")

    elif admin_input == 3 :
        echo["cost3"].append(admin_mod)
        print(f"berhasil menambahkan {admin_mod} ke echo cost 3")
    elif admin_input == 1 :
        echo["cost1"].append(admin_mod)
        print(f"berhasil menambahkan {admin_mod} ke echo cost 1")

    else :
        print(f"echo cost {admin_input} tidak ada ")

    lanjut = option.lanjutOrTak()

    if lanjut :
        echoBaru()

    else :
        print("keluar dari opsi...")
        return

def hapusListEcho() :
```

```

os.system('cls' if os.name == 'nt' else 'clear')
if len(echo["cost4"]) < 2 or len(echo["cost3"]) < 2 or len(echo["cost1"])
< 2 :
    print("opsi hapus berhenti")
    print("masing masing echo dgn cost berbeda setidaknya punya 1 echo")
    return

listEcho()

try :
    admin_input= int(input("masukkan nomor yang ingin dihapus (20 untuk
selesai) : "))
except ValueError :
    print("echo tidak ada")

if admin_input <= len(echo["cost4"]) - 1 :
    echo["cost4"].pop(admin_input)

elif admin_input <= len(echo["cost4"] + echo["cost3"]) -1 :
    echo["cost3"].pop(admin_input - len(echo["cost4"]))

elif admin_input <= len(echo["cost4"] + echo["cost3"] + echo["cost1"]) -1
:
    echo["cost1"].pop(admin_input - len(echo["cost3"] + echo["cost4"]))

elif admin_input == 20 :
    print("selesai hapus echo")
    return

else :
    print("input salah")

lanjut = option.lanjutOrTak()

if lanjut :
    hapusListEcho()

else :
    print("keluar dari opsi...")
    return

```



#### 4. Hasil Output

```
| --- | ===== ECHO COST 4 ===== | --- |
| 0   | Bell-Borne Geochelone | 4   |
| 1   | crownless             | 4   |
| 2   | Fellian Beringal      | 4   |
| 3   | inferno rider         | 4   |
| --- | ===== ECHO COST 3 ===== | --- |
| 4   | chop chop             | 3   |
| 5   | chaserazor            | 3   |
| 6   | kerasaur              | 3   |
| 7   | hoochief              | 3   |
| --- | ===== ECHO COST 1 ===== | --- |
| 8   | fusion prism          | 1   |
| 9   | gulpuff               | 1   |
| 10  | excarat               | 1   |
| 11  | aero predator         | 1   |
+-----+-----+-----+
21 untuk selesai buat preset
50 untuk selesai
nomor echo untuk menambahkan echo ke preset baru
masukkan pilihan : 2

+-----+-----+-----+
| nama preset | isi preset |
+-----+-----+-----+
| new preset 0 | ['Fellian Beringal', 'crownless', 'kerasaur'] |
+-----+-----+-----+
```

Gambar 4.1 hasil output buat preset baru

```

+-----+-----+
| nama preset | status preset |
+-----+-----+
| new preset 0 | bisa ditambah |
+-----+-----+
masukkan nama echo yang ingin di edit
tekan bebas selain preset sebanyak 2 kali untuk keluar
masukkan pilihan : new preset 0

```

pilih echo yang dimasukkan : 8

```

+-----+-----+
| nama preset | status preset |
+-----+-----+
| new preset 0 | tidak bisa ditambah |
+-----+-----+

```

Gambar 4.2 hasil opsi user (edit echo)

```

+-----+-----+
| nama preset | isi preset |
+-----+-----+
| apakah ini pt terakhir? | ['Fellian Beringal', 'crownless', 'kerasaur', 'aero predator'] |
+-----+-----+
masukkan nama echo yang ingin di edit
tekan bebas selain preset sebanyak 2 kali untuk keluar
masukkan pilihan : apakah ini pt terakhir?
preset yang terpilih :
+-----+-----+
| nama preset | isi preset |
+-----+-----+
| apakah ini pt terakhir? | ['Fellian Beringal', 'crownless', 'kerasaur', 'aero predator'] |
+-----+-----+
yakin ingin hapus preset?(0 untuk ya) :0

```

kamu belum punya preset untuk dilihat

gambar 4.3 opsi user (delete preset)

```

+-----+-----+
| nama preset | isi preset |
+-----+-----+
| new preset 0 | ['Fellian Beringal', 'crownless', 'kerasaur', 'aero predator'] |
+-----+-----+
masukkan nama echo yang ingin di edit
tekan bebas selain preset sebanyak 2 kali untuk keluar
masukkan pilihan : new preset 0
preset yang terpilih :
+-----+-----+
| nama preset | isi preset |
+-----+-----+
| new preset 0 | ['Fellian Beringal', 'crownless', 'kerasaur', 'aero predator'] |
+-----+-----+
ubah jadi? : apakah ini pt terakhir?

```

---

```

ubah nama berhasil
+-----+-----+
| nama preset | isi preset |
+-----+-----+
| apakah ini pt terakhir? | ['Fellian Beringal', 'crownless', 'kerasaur', 'aero predator'] |
+-----+-----+

```

gambar 4.4 opsi user (ganti nama preset)

---	==== ECHO COST 4 ====	---
0	Bell-Borne Geochelone	4
1	crownless	4
2	Fellian Beringal	4
3	inferno rider	4
---	==== ECHO COST 3 ====	---
4	chop chop	3
5	chaserazor	3
6	kerasaur	3
7	hoochief	3
---	==== ECHO COST 1 ====	---
8	fusion prism	1
9	gulpuff	1
10	excarat	1
11	aero predator	1
-----+		
tambah echo cost berapa? (tekan 5 untuk jika selesai) : 4		
masukkan nama echo : burung kelelawar		

---	==== ECHO COST 4 ====	---
0	Bell-Borne Geochelone	4
1	crownless	4
2	Fellian Beringal	4
3	inferno rider	4
4	burung kelelawar	4
---	==== ECHO COST 3 ====	---
5	chop chop	3
6	chaserazor	3
7	kerasaur	3
8	hoochief	3
---	==== ECHO COST 1 ====	---
9	fusion prism	1
10	gulpuff	1
11	excarat	1
12	aero predator	1
-----+		

gambar 4.5 opsi admin (tambah echo)

---	==== ECHO COST 4 ====	---
0	Bell-Borne Geochelone	4
1	crownless	4
2	Fellian Beringal	4
3	inferno rider	4
4	burung kelelawar	4
---	==== ECHO COST 3 ====	---
5	chop chop	3
6	chaserazor	3
7	kerasaur	3
8	hoochief	3
---	==== ECHO COST 1 ====	---
9	fusion prism	1
10	gulpuff	1
11	excarat	1
12	aero predator	1

masukkan nomor yang ingin dihapus (20 untuk selesai) : 12

No.	Echo	Cost
---	==== ECHO COST 4 ====	---
0	Bell-Borne Geochelone	4
1	crownless	4
2	Fellian Beringal	4
3	inferno rider	4
4	burung kelelawar	4
---	==== ECHO COST 3 ====	---
5	chop chop	3
6	chaserazor	3
7	kerasaur	3
8	hoochief	3
---	==== ECHO COST 1 ====	---
9	fusion prism	1
10	gulpuff	1
11	excarat	1

gambar 4.6 opsi admin (delete echo)

## 5. Langkah-langkah GIT

### 5.1 GIT Init

```
ozora@ozra MINGW64 /g/praktikum/APD/A2-25 (main)
$ git init
Reinitialized existing Git repository in G:/praktikum/APD/A2-25/.git/
```

gambar 5.1 inisiasi git

### 5.2 GIT Add

```
ozora@ozra MINGW64 /g/praktikum/APD/A2-25 (main)
$ git add .
```

gambar 5.2 menambahkan file baru ke git

### 5.3 GIT Commit

```
ozora@ozra MINGW64 /g/praktikum/APD/A2-25 (main)
$ git commit -m "submit posttest 8"
[main 39905c0] submit posttest 8
23 files changed, 737 insertions(+)
```

gambar 5.3 commit git local

### 5.4 GIT Remote

```
ozora@ozra MINGW64 /g/praktikum/APD/A2-25 (main)
$ git remote add origin https://github.com/ojola444/praktikum-apd
error: remote origin already exists.
```

gambar 5.4 git remote

### 5.5 GIT Push

```
ozora@ozra MINGW64 /g/praktikum/APD/A2-25 (main)
$ git push -u origin main
Enumerating objects: 31, done.
Counting objects: 100% (31/31), done.
Delta compression using up to 16 threads
Compressing objects: 100% (28/28), done.
Writing objects: 100% (29/29), 918.28 KiB | 23.54 MiB/s, done.
Total 29 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
```

gambar 5.5 push commit local ke repository main

..		
__pycache__	submit posttest 8	1 minute ago
2509106038-Febrianno-Ozora-Alinanto-PT-8.py	submit posttest 8	1 minute ago
_2509106038-Febrianno-Ozora-Alinanto-PT-8.pdf	submit posttest 8	1 minute ago
create.py	submit posttest 8	1 minute ago
createAdmin.py	submit posttest 8	1 minute ago
delete.py	submit posttest 8	1 minute ago
deleteAdmin.py	submit posttest 8	1 minute ago
loginAndRegist.py	submit posttest 8	1 minute ago
option.py	submit posttest 8	1 minute ago
read.py	submit posttest 8	1 minute ago
table.py	submit posttest 8	1 minute ago
update.py	submit posttest 8	1 minute ago
variable.py	submit posttest 8	1 minute ago

gambar 5.6 hasil push github