ICG
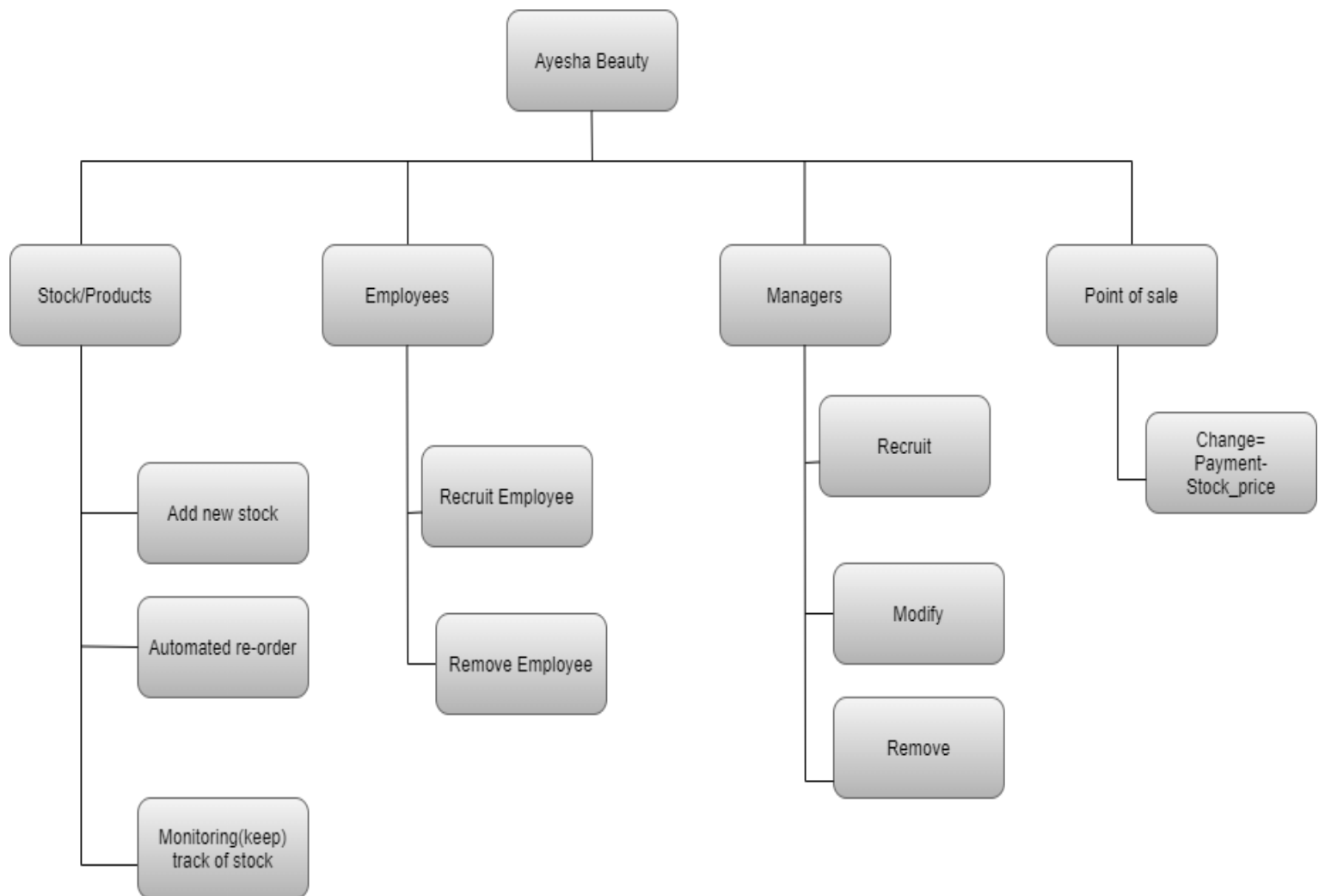# **Group Project**
Group Members:

Hauala Neal – 220081352

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Kariseb Shaun – 221137483
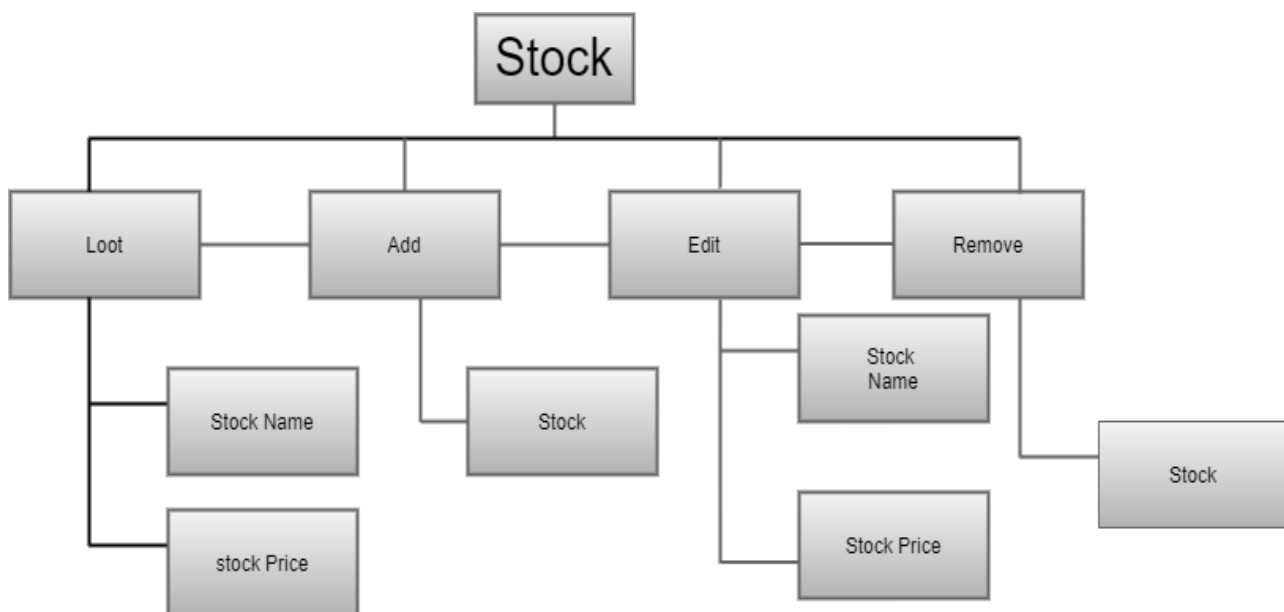
Watee Mwashena Eric - 221056513

Modules

Functions

Stock

Employee

```
                        ┌─────────────┐
                        │  Employees  │
                        └──────┬──────┘
           ┌───────────────┬───┴────────────┬──────────────┐
    ┌──────┴──────┐ ┌──────┴──────┐ ┌───────┴─────┐ ┌──────┴──────┐
    │   Recruit   │ │   Search    │ │   Modify    │ │   Remove    │
    └──────┬──────┘ └──────┬──────┘ └──────┬──────┘ └──────┬──────┘
    ┌──────┴──────┐ ┌──────┴──────┐ ┌───────┴─────┐ ┌──────┴──────┐
    │New Employee │ │Employee Name│ │Employee Name│ │Employee Name│
    └─────────────┘ └─────────────┘ └─────────────┘ └─────────────┘
                    ┌─────────────┐ ┌─────────────┐
                    │Employees Job│ │Employees Job│
                    └─────────────┘ └─────────────┘
```

Manager

```
                        ┌─────────────────┐
                        │     Manager     │
                        └────────┬────────┘
          ┌──────────────────────┼──────────────────────┐
┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│ Employee payroll │   │      Stock      │    │       POS       │
└────────┬─────────┘   └────────┬────────┘    └─────────────────┘
         │   ┌─────────────────┐│   ┌─────────────────┐
         ├───│   Pay per hour  ││───│    Add stock    │
         │   └─────────────────┘│   └─────────────────┘
         │   ┌─────────────────┐│   ┌─────────────────┐
         └───│ Remove Employee ││───│  Reorder Stock  │
             └─────────────────┘    └─────────────────┘
```

Point of sale
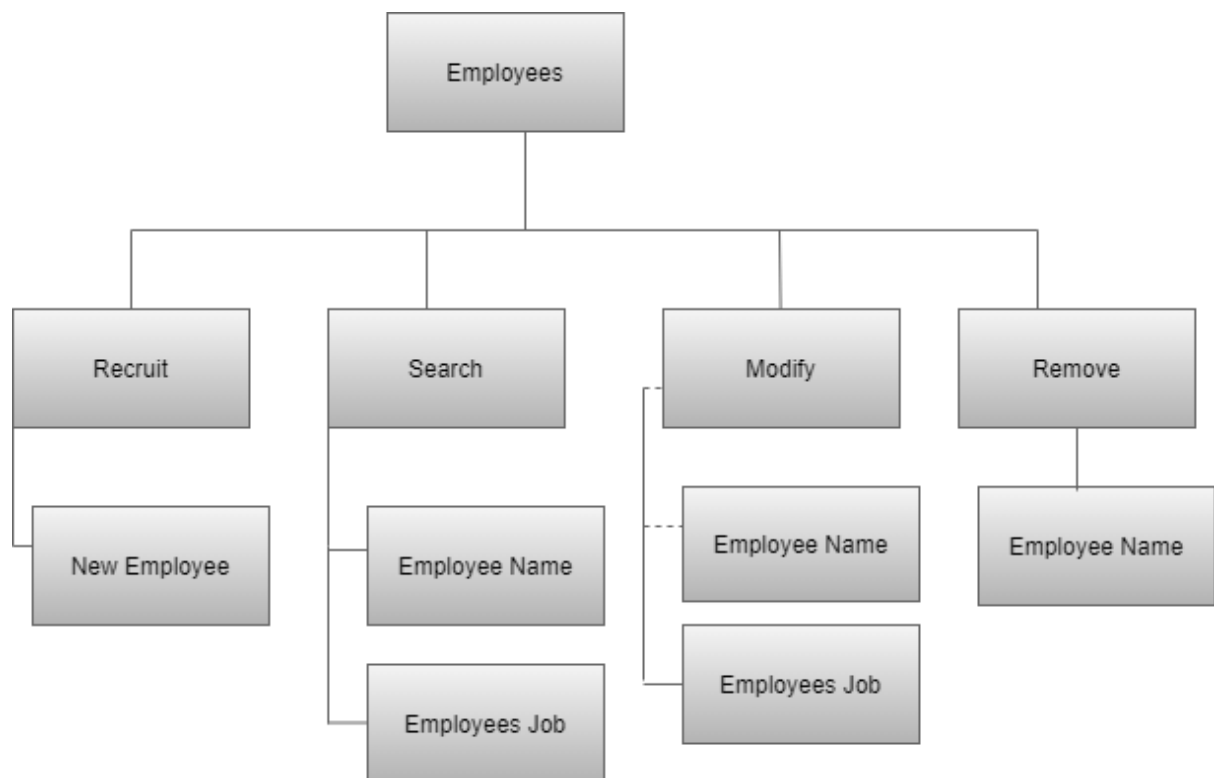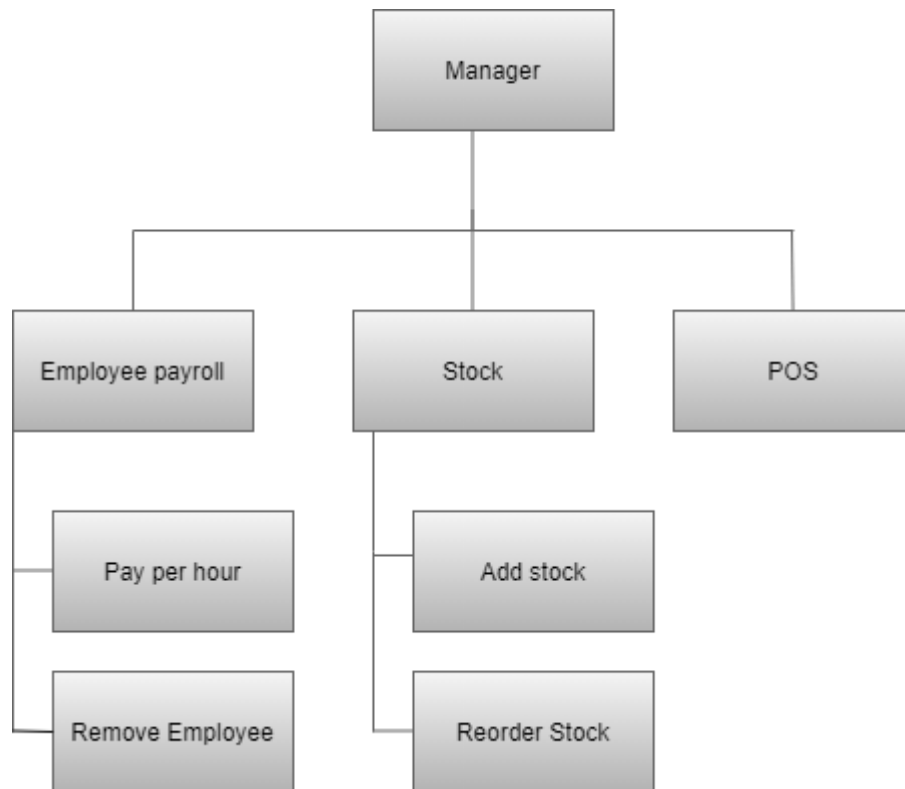
```
┌─────────────────────┐
│                     │
│   Point of  sale    │
│                     │
└──────────┬──────────┘
           │
           │
           │
┌──────────┴──────────┐
│                     │
│        Cash         │
│                     │
└──┬──────────────────┘
   │
   │   ┌─────────────────────┐
   │   │                     │
   ├───│  Cash - cost_price  │
   │   │                     │
   │   └─────────────────────┘
   │
   │   ┌─────────────────────┐
   │   │                     │
   └───│       Change        │
       │                     │
       └─────────────────────┘
```
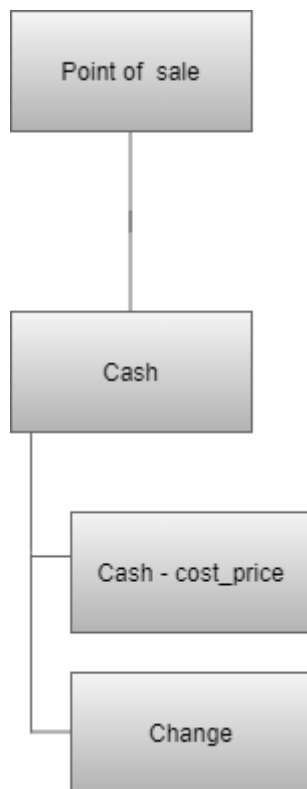
PSEUDO CODE

Pseudo code 1

1. Start

2. Prompt product name

3. Prompt min product quantity

4. Read product quantity

5. Read product price

6. Display "enter product name"

7. Display product quantity and product name

8. If product quantity<min product quantity

Then

9 Display "stock of (product name) is insufficient, please re-order"

Else

10 Display "there is sufficient stock"

Endif

End

Pseudo code 2

1. Start

2. Prompt product name

3. Prompt product amount

4. Read total price

5. Read product amount

6. Read tax rate

7. Read product price

8. Display "enter product name and product amount"

9. If product amount=> product quantity

Then

10. Compute total price = (product price*product amount)* tax rate

11. Display total price

Else

12. Display "(product name) is out of stock

Endif

End

Pseudo code 3

1.Start

2.Prompt employee surname

3.Prompt job grade

4.Prompt high salary

5.Prompt low salary

6.Read employee name

7.Read work time

8.Read salary

9.Read employment type

10.Display "enter employee surname"

11.If job grade == good

Then

12.Salary = high salary*work time

Else

13.If job grade==bad

Then

14.Salary==low salary*work time

15.Display salary

Endif

Endif

16.If employment type== permanently

Then

17.Display "this employee is permanently employed"

Else

18.If employment type== contract

Then

19.Display "this employee is on contract"

Endif

Endif

End

Flow charts

Pseudo code 1

```
            ┌─────────────┐
            │    Start    │
            └─────────────┘
                   │
                   ▼
          ┌──────────────────┐
          │   Prompt name    │
          │   Prompt min     │
          │ product quantity │
          └──────────────────┘
                   │
                   ▼
          ┌──────────────────┐
          │ Read product price│
          │ Read product price│
          └──────────────────┘
                   │
                   ▼
          ┌──────────────────┐
          │     Display      │
          │      enter       │
          │     product      │
          │      name        │
          └──────────────────┘
                   │
                   ▼
          ┌──────────────────┐
          │     Display      │
          │     product      │
          │     quantity     │
          │       and        │
          │     product      │
          └──────────────────┘
                   │
                   ▼
                  ◇ if
                  product
                  quantity
                  < min
```

display "there is sufficient stock"

Display "stock of (product name) is insufficient, please re-order"

stop

Pseudo code 2

```
         ┌─────────────┐
         │    Start    │
         └──────┬──────┘
                │
                ▼
      ╱─────────────────╲
     ╱ Prompt product    ╲
    ╱      name           ╲
    ╲  Prompt product     ╱
     ╲     amount        ╱
      ╲─────────────────╱
                │
                ▼
      ┌──────────────────┐
      │ Read total price │
      │ Read product     │
      │   amount         │
      │ Read tax rate    │
      │ Read product price│
      └────────┬─────────┘
               │
               ▼
      ╱─────────────────╲
     ╱ Display "enter    ╲
    ╱  product name and   ╲
    ╲  product amount"    ╱
     ╲─────────────────╱
               │
               ▼
```

Start

Prompt product name
Prompt product amount

Read total price
Read product amount
Read tax rate
Read product price

Display "enter product name and product amount"

Display "(product name) is out of stock

If product amount=> product quantity

Compute total price = (product price*product amount)* tax

stop

Dispaly total price