

2.1 Task 1: Calculate Tax

```
RATE1 = 0.10
RATE2 = 0.25
RATE1_SINGLE_LIMIT = 32000.0
RATE1_MARRIED_LIMIT = 64000.0

income = float(input(" enter your income "))
maritalStatus = input("Enter s for single, m for married : ")

tax1 = 0
tax2 = 0

if maritalStatus == "s" :
    if income <= RATE1_SINGLE_LIMIT :
        tax1 = RATE1 * income
    else :
        tax1 = RATE1 * RATE1_SINGLE_LIMIT
        tax2 = RATE2 * ( income - RATE1_SINGLE_LIMIT)
else :
    if income <= RATE1_MARRIED_LIMIT :
        tax1 = RATE1 * income
    else :
        tax1 = RATE1 * RATE1_MARRIED_LIMIT
        tax2 = RATE2 * (income - RATE1_MARRIED_LIMIT)
totalTax = tax1 + tax2

print(" The tax is ", totalTax)
```

OUTPUT :

Enter your income : 57000
Enter s for single, m for married : s
The tax is 9450.0

Enter your income : 57000
Enter s for single, m for married : m
The tax is 5700.0

2.2 Task 2: Double the amount

```
interest_rate = int(input("Enter the interest rate : "))
print()
initial_investment = float(input("Enter the initial investment : "))
total = initial_investment
double = 2 * initial_investment
years = 0
while total < double:
    total += total * interest_rate
    years += 1
print(f"Investment will take {years} years to double")
```

OUTPUT:

Enter the interest rate : 5

Enter the initial investment : 1000

Investment will take 1 years to double