

```

import math
def getFloatInput(message):
    user=input(message)
    if user.strip().replace("-", "").replace(".", "").isdigit():
        user=float(user)
        if user <=0:
            print("error,input must be positive number")
            return -1
        else:
            return user
    else:
        print("please input a numeric value")
        return -1

def getGallonsOfpaint(squarefeet,feetpergallon):
    price = squarefeet / feetpergallon
    price= math.ceil(price)
    return price
def getLaborHours( laborhours,totalgallon):
    return totalgallon*laborhours

def getLaborCost(laborhours,laborcharge):
    return laborhours*laborcharge
def getPaintCost(totalGallon,paintcost):
    return totalGallon*paintcost

def getSalesTax(state):
    if state == "CT":
        return 0.06
    if state == "MA":
        return 0.0625
    if state == "ME":
        return 0.085
    if state == "NH":
        return 0
    if state == "RI":
        return 0.07
    if state == "VT":
        return 0.06
    return 0
def showCostEstimate(gallons,hours,paintcharge,laborcharge,state,filename):
    print("gallons of paint:",gallons)
    print("hours of labor:",hours)
    print(f"paint charges: ${paintcharge:,.2f}")
    print(f"laborcharge: ${laborcharge:,.2f}")
    total = paintcharge+laborcharge
    tax= getSalesTax(state)*total
    print(f"Tax:${tax:,.2f}")
    total = total+tax
    print(f"totalcost:${total:,.2f}")
    with open(filename,"w") as file:
        print("gallons of paint:",gallons,file=file)
        print("hours of labor:",hours,file=file)
        print(f"paint charges: ${paintcharge:,.2f}",file=file)
        print(f"laborcharge: ${laborcharge:,.2f}",file=file)
        total = paintcharge+laborcharge
        tax= getSalesTax(state)*total
        print(f"Tax:${tax:,.2f}",file=file)
        total = total+tax
        print(f"totalcost:${total:,.2f}",file=file)

def main():
    wallspace=getFloatInput("enter wall space in square feet")
    paintprice=getFloatInput("enter paint price per gallon")
    feet= getFloatInput("enter feet per gallon")
    laborhour = getFloatInput("enter how many labor hours per gallon")
    laborcharge=getFloatInput("labor charge per hour")
    state=input("state job is in")
    state=state.upper()
    name=input("customer last name")

    gallon=getGallonsOfpaint(wallspace,feet)
    laborhours=getLaborHours(laborhour,gallon)
    laborcost=getLaborCost(laborhours,laborcharge)
    paintcost=getPaintCost(gallon,paintprice)
    filename=name+"_paintjoboutput.txt"
    showCostEstimate(gallon,laborhours,paintcost,laborcost,state,filename)
    print("file:",filename,"was created")

main()

```