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class VendingMachine {
public:
    VendingMachine() ;
    int Coin();
    int SmallCup() ;
    int LargeCup();
    int Sugar();
    int Coffee();
    int InsertLargeCups(int);
    int InsertSmallCups(int);
    int SetPrice(int p);
    int Cancel() ;
    int Dispose() ;

private:
    int x;
    int w;
    int k1;
    int k;
    int t;
    int s;

};

VendingMachine::VendingMachine() {
    k=0;
    k1=0;
    t=0;
    w=0;
    x=1;
}

int VendingMachine::Coin() {
    if (x==1) {
        if ((t+25>=w)&&(w>0)) {
            s=0;
            t=0;
            x=2;
            return 1;
        }
        else if(t+25<w) {
            t=t+25;
            return 1;
        }
    }
    else if ((x>1)&&(x<6)) {
        cout<<"RETURN COIN"<<endl;
        return 1;
    }
    return 0;
}

int VendingMachine::SmallCup() {
    if ((x==2)|| (x==3)) {
        s=2;
        return 1;
    }
    return 0;
}

int VendingMachine::LargeCup() {
    if ((x==2)|| (x==3)) {
        s=1;
        return 1;
    }
}

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    }
    return 0;
}

int VendingMachine::Sugar() {
    if ((x==2)|| (x==3)) {
        if(x==2) x=3;
        else x=2;
        return 1;
    }
    return 0;
}

int VendingMachine::Coffee() {
    if ((x==2)|| (x==3)) {
        if((x==2)&&(k>1)&&(s==2)) {
            cout<<"DISPOSE SMALL CUP OF COFFEE"<<endl;
            k=k-1;
            x=1;
            return 1;
        }
        else if ((x==2)&&(k1>1)&&(s==1)) {
            cout<<"DISPOSE LARGE CUP OF COFFEE"<<endl;
            k1=k1-1;
            x=1;
            return 1;
        }
        else if ((x==2)&&(k1==1)&&(s==1)) {
            cout<<"DISPOSE LARGE CUP OF COFFEE"<<endl;
            k1=k1-1;
            x=5;
            return 1;
        }
        else if ((x==2)&&(k==1)&&(s==2)) {
            cout<<"DISPOSE SMALL CUP OF COFFEE"<<endl;
            k=k-1;
            x=4;
            return 1;
        }
        else if ((x==3)&&(k==1)&&(s==2)) {
            cout<<"DISPOSE SMALL CUP OF COFFEE WITH SUGAR"<<endl;
            k=k-1;
            x=4;
            return 1;
        }
        else if ((x==3)&&(k1==1)&&(s==1)) {
            cout<<"DISPOSE LARGE CUP OF COFFEE WITH SUGAR"<<endl;
            k1=k1-1;
            x=5;
            return 1;
        }
        if((x==3)&&(k>1)&&(s==2)) {
            cout<<"DISPOSE SMALL CUP OF COFFEE WITH SUGAR"<<endl;
            k=k-1;
            x=1;
            return 1;
        }
        else if ((x==3)&&(k1>1)&&(s==1)) {
            cout<<"DISPOSE LARGE CUP OF COFFEE WITH SUGAR"<<endl;
            k1=k1-1;
            x=1;
            return 1;
        }
    }
    return 0;
}
return 0;
}

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int VendingMachine::InsertLargeCups(int n) {
    if ((x==1)&&(n>0)) {
        k1=k1+n;
        return 1;
    }
    else if ((x==5)&&(n>0)) {
        k1=n;
        x=1;
        return 1;
    }
    return 0;
}

int VendingMachine::InsertSmallCups(int n) {
    if ((x==1)&&(n>0)) {
        k=k+n;
        return 1;
    }
    else if ((x==4)&&(n>0)) {
        k=n;
        x=1;
        return 1;
    }
    return 0;
}

int VendingMachine::SetPrice(int p) {
    if ((x==1)&&(p>0)) {
        w=p;
        return 1;
    }
    return 0;
}

int VendingMachine::Cancel() {
    if ((x==2)|| (x==3)) {
        cout<<"RETURN COINS"<<endl;
        x=1;
        return 1;
    }
    return 0;
}

int VendingMachine::Dispose() {
    if ((x==1)) {
        cout<<"SHUT DOWN"<<endl;
        x=6;
        return 1;
    }
    return 0;
}

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