HW #1

1.

class: change

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-d: int

// d holds dollar value of cash

// precondition: d>=0

-c: int

// c hold the amount of c

//precondition: c>=0

-p: double

//price of item being sold

//precondition p>=0, limited to 2 decimal places

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+change() : void

//default constructor

//returns void

+setd(d:int) : void

//changes d variable

//returns void

+getd() : int

//returns d variable

+setc(c:int):void

//changes c variable

+getc():int

//returns c variable

+setPrice(p:double) : void

//sets price variable

+getPrice(): double

//returns price variable

+change(d:int, c:int, p:double): double

//double returns represents the change in $ owed back

//change returns value >=0

2.

a.

class: Date

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+addOneDay(string a, int b, int c) : void

//Increases the day +1

//Preconditions: month in string format, day in int format, year in int format

//Postconditions: Changes the day to the next day, if end of month or year, change month/year and restart day/month/year

b.

void addOneDay(string &a,int &b, int &c){

int mon;

string m1="january",m2="febuary",m3="march",m4="april",m5="may",m6="june",m7="july",m8="august",m9="september",m10=

"october",m11="november",m12="december";

//change month to int so month can change

if (a==m1){

mon=1;

}

else if(a==m2){

mon=2;

} else if(a==m4){

mon=3;

} else if(a==m4){

mon=4;

} else if(a==m5){

mon=5;

} else if(a==m6){

mon=6;

} else if(a==m7){

mon=7;

} else if(a==m8){

mon=8;

} else if(a==m9){

mon=9;

} else if(a==m10){

mon=10;

} else if(a==m11){

mon=11;

} else if(a==m12){

mon=12;

}

//increment day

b+=1;

//change month or year if day overflow.

//feb

if (mon==2 and b==30){

b=1;

mon+=1;

}

//dec

if (mon==12 and b==32){

mon=1;

b=1;

c+=1;

}

//mon with 31 d

if ((mon==1 or mon==3 or mon==5 or mon==7 or mon==8 or mon==10)and(b==32)){

b=1;

mon+=1;

}

//mon with 30 d

if ((mon==4 or mon ==6 or mon==9 or mon ==11) and (b==31)){

b=1;

mon+=1;

}

//change month

if(mon==1){

a=m1;

}

else if(mon==2){

a=m2;

}

else if(mon==3){

a=m3;

}

else if(mon==4){

a=m4;

}

else if(mon==5){

a=m5;

}

else if(mon==6){

a=m6;

}

else if(mon==7){

a=m7;

}

else if(mon==8){

a=m8;

}

else if(mon==9){

a=m9;

}

else if(mon==10){

a=m10;

}

else if(mon==11){

a=m11;

}

else if(mon==12){

a=m12;

}

}