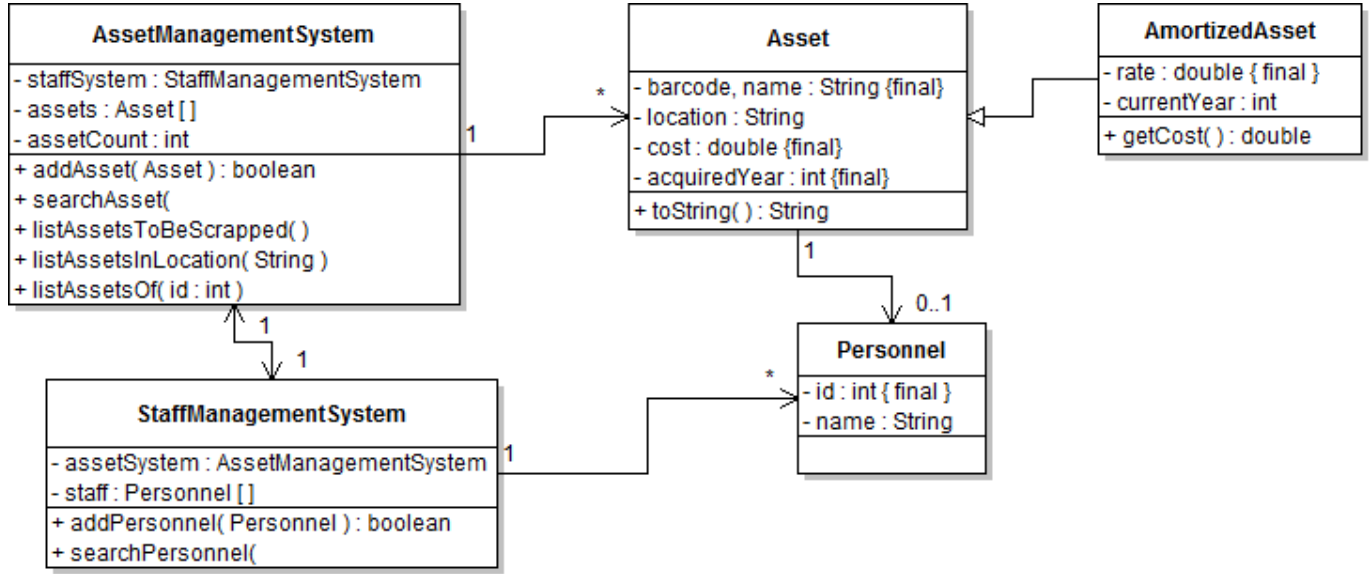


BLM 2012 OBJECT ORIENTED PROGRAMMING Sec.1 (2018/2) D012 (1.VİZE)							
Sıra	No	Adı	Soyadı	Q1	Q2	Q3	1. Ara Snav
1	08011057	FATİH	OKYAY	2	19	7	28
2	10011057	ALI KEMAL CEM	ÖZDEMİR	9	1	5	15
3	10011094	YİĞİT	YANDAS	13	11	2	26
4	11011017	HAKAN CAN	İPEK	14	46	0	60
5	11011084	ZÜLFÜ	KORKMAZ	9	35	0	44
6	12011015	FATİH	ÇOMAK	16	49	3	68
7	12011048	SALİH MERT	YİĞİT	G	G	G	Girmedi
8	12011065	NAZİM BURAK	GENÇ	19	28	5	52
9	12011079	ÖĞÜZHAN	TIRYAKI	17	46	5	68
10	13011047	ENES	ÖZKAYA	5	39	1	45
11	13011089	FATMA BETÜL	KARAPINAR	17	15	1	33
12	14011021	BETÜL	AKTAŞ	9	50	12	71
13	14011052	RAHMİ CEMRE	ÜNAL	18	46	3	67
14	14011063	EMİNE BETÜL	ŞINAR	9	20	0	29
15	14011064	YAĞIZ	AKYÜZ	13	50	2	65
16	14011704	HATİCE	TEKİN	10	20	0	30
17	15011003	YUSUF EMIN	KINATAŞ	G	G	G	Girmedi
18	15011012	UFUK CAN	AKSOY	17	44	5	66
19	15011024	MUHAMMET CELAL	USTAÖMER	15	32	12	59
20	15011030	KÜBRA	KARAKUYU	18	19	5	42
21	15011032	ABDULLAH	GENÇ	15	37	10	62
22	15011040	MUHAMMED KAĞAN	ÜLKER	8	5	1	14
23	15011044	DILARA	SUVEREN	5	35	5	45
24	15011050	SERRA	SEMİZ	5	11	0	16
25	15011051	AŞIR FURKAN	KAYACIK	9	21	6	36
26	15011053	ORÇUN	ÇELİK	18	44	5	67
27	15011057	BAHADIR	GÜLTEKİN	17	26	8	51
28	15011058	HALİT	GÖRMEZ	15	41	4	60
29	15011063	METEHAH	ÇAYLAK	10	16	1	27
30	15011064	ALTUĞ NUMAN	YILDIZ	17	29	5	51
31	15011066	ALPEREN ÖNDER	ÖZKAN	7	2	0	9
32	15011070	FURKAN	ZEREY	18	56	2	76
33	15011081	ALPER	SELMAN	13	26	2	41
34	15011702	ÖZGÜR	KAN	18	20	1	39
35	15011907	HUSEYN	VALIYEV	15	24	2	41
36	16011002	AYKUT	AKDENİZ	10	41	12	63
37	16011003	AHMET	AYDIN	10	28	8	46
38	16011004	SERDAR	YILDIZ	13	49	13	75
39	16011005	MEHMET SERDAR	ORMANCI	9	1	1	11
40	16011006	MUSTAFA	ÖZTÜRK	G	G	G	Girmedi
41	16011008	ÇİHAN	KAYA	18	43	4	65
42	16011010	FURKAN NECATİ	ÜRKMEZ	G	G	G	Girmedi
43	16011016	AHMET	ELGÜN	13	35	0	48
44	16011017	MERT	ÖZ	17	40	15	72
45	16011023	MEHMET HAYRİ	ÇAKIR	18	36	8	62
46	16011030	İLAYDA	ŞAHİN	16	30	12	58
47	16011032	FARUK	ARSLAN	17	32	7	56
48	16011033	YUSUF	ANI	11	35	13	59
49	16011039	ONUR	AYDEMİR	9	54	10	73
50	16011043	RECEP FURKAN	KOÇYİĞİT	8	53	10	71
51	16011048	AHMET	BAĞCI	3	35	8	46
52	16011057	BUŞRA	KÜDEN	9	44	8	61
53	16011061	BERKAY	HAMARAT	17	26	0	43
54	16011062	EMİN TEYHAN	USLU	10	35	3	48
55	16011063	BURAK	DURUNUNLAR	18	51	20	89
56	16011066	MEHMET FURKAN	ŞAHİN	17	45	7	69
57	16011067	KEREM	YOLCU	9	48	7	64
58	16011068	SELİN	GEZER	13	22	0	35
59	16011073	İPEK	KOÇ	14	9	7	30
60	16011078	EDİZ	AYDOĞAN	12	18	0	30
61	16011080	TOYGAR	KAYAŞ	20	40	12	72
62	16011081	FAZLI	BOZATAY	18	35	15	68
63	16011082	CEM ÖZGÜR	DEDE	1	36	0	37
64	16011085	FATMA	TANRIKULU	12	10	12	34
65	16011087	CANER	KAYA	18	45	10	73
66	16011088	İBRAHİM	TİPİRDİK	17	52	5	74
67	16011090	AHMET	KAYGISIZ	18	20	2	40
68	16011093	HALİL İBRAHİM	ULUOĞLU	19	35	5	59
69	16011112	ENES	GÜNDÜZ	0	0	2	2
70	16011114	SEDAT	AKGÜL	9	30	1	40
71	16011116	ÖMÜR	ÇİÇEN	G	G	G	Girmedi
72	16011120	HÜSEYİN MURAT	GEZER	5	10	7	22
73	16011133	UMİT RASİM	TURHAN	10	18	1	29
74	16011135	UGURCAN	YILMAZ	G	G	G	Girmedi
75	16011609	SEYYİD İBRAHİM	GÜLEÇ	20	53	7	80
76	16011701	ATAKAN	TEKOĞLU	13	35	0	48
77	16011703	KAAN	AKINTÜRK	2	35	1	38
78	16011705	YUNUS EMRE	DEMİR	8	35	5	48
79	16011906	KHAGANI	KHANKISHİYEV	12	27	1	40
80	17011001	ELİF	ÖZCAN	18	28	5	51
81	17011017	MEHMET ALİ	VARGÜN	9	51	2	62
82	17011024	ELİF	ÖZKAN	17	29	5	51
83	17011029	SEZİN	BİNER	9	26	0	35
84	17011045	BEYZA NUR	SEZGİN	13	46	12	71
85	17011048	TOLGA	ZİFTÇİ	18	50	20	88
86	17011052	HÜSREV	YUMUŞAK	12	46	19	77
87	17011053	MAHMUT MURAT	AKTAN	18	42	15	75
88	17011060	YUSUF ETKİN	KIZILDAG	13	24	7	44
89	17011064	ÖĞÜZHAN	SARIALIOĞLU	12	42	5	59
90	17011066	ALP BİNTUĞ	UZUN	13	40	0	53
91	17011068	FATMA ZEHRA	ÇETİN	17	49	11	77
92	17011069	ALPEREN	ÖZER	15	26	4	45
93	17011072	BERKE KAAH	AÇIKGÖZ	5	13	5	23
94	17011091	EREN	TERZİOĞLU	18	53	11	82
95	17011602	SENA	OCAKÇI	17	20	5	42
96	17011609	İSMAIL	BAYRAM	12	26	8	46
97	17011611	BETÜL	ÖN	17	48	13	78
98	17011902	NİNİ	KVATCHANTIRADZE	17	40	10	67
99	17011903	NIHAD	GULUZADE	18	45	10	73
100	17011904	KAMRAN	BALAYEV	9	19	0	28
101	17011908	MCCDEDDİN	HARRAD	17	56	8	81
102	18011602	CANBERK	GÜLLÜOĞLU	18	30	4	52
103	18011613	MEHMET EMRE	GÜL	17	40	10	67
104	E18011005	ABDUFATTOKH	ABDUFATTOKHOV	G	G	G	Girmedi
105	E18011006	DASTAN	YULDASHEV	G	G	G	Girmedi
106	E18012004	EMİNA	FAJIC	0	1	0	1
107	E18012005	MERJEMA	MEHMEDOVIC	1	10	0	11
108	F18011003	HÜSEYİN BERK	BUGUR	17	20	15	52
109	13059023	SABİHA YAĞMUR	BAYRAM	18	22	4	44
110	13067701	TURAN	ÖZEV	0	1	0	1

YILDIZ TEKNİK ÜNİVERSİTESİ
ELEKTRİK-ELEKTRONİK FAKÜLTESİ / BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ

Öğrencinin Adı Soyadı:	Öğrenci No:	İmza:
Dersin Adı: BLM2012 Nesneye Yönelik Progr.	Tarih/Saat:	Sınav süresi: 90dk
Sınav Türü:	Vize1 +	Vize2
Unvan Ad Soyad (Ders Yürütücüsü):	Mazeret	Final
		Bütünleme

Answer the questions according to the incomplete UML class schema below. Keep in mind that the class schema is incomplete. Therefore you will need to add necessary member fields and/or methods to classes. Take necessary precautions to prevent illogical cases while coding.



Question 1: Write the source code of class AmortizedAsset. An amortized asset is an asset where its cost is decreased by a ratio for each year. For example, if the rate is 0.1, cost is \$100, acquired year is 2013 and the current year is 2015; the getCost method of AmortizedAsset must return 80.

Question 2: The details of some methods of the class AssetManagementSystem are given below. Write the source codes of only those methods.

- Constructor
- searchAsset: Searches for an asset with a given barcode as method parameter.
- addAsset: Adds an asset to the array. Two assets with the same barcode cannot reside in the array.
- listsAssetsToBeScrapped: Lists the assets having zero cost to the screen.
- listAssetsOf: Lists the assets that are used by the personnel whose ID is given. Do not try to search for items of unregistered personnel.

Question 3: Draw the UML sequence diagram of the method listsAssetsInLocation. That method Lists the assets that reside in the given location to the screen.

Question 1: Write the source code of class AmortizedAsset. (20p)

```
public class AmortizedAsset extends Asset {
    private final double rate;
    private int currentYear;

    public AmortizedAsset(String barcode, String name, double cost,
        int acquiredYear, double rate) {
        super(barcode, name, cost, acquiredYear);
        this.rate = rate;
    }
    public double getRate() { return rate; }
    public void setCurrentYear(int year) { this.currentYear = year; }
    public int getCurrentYear() { return currentYear; } //optional

    public double getCost() {
        double amortization = super.getCost() * rate * ( year - getAcquiredYear() );
        if( super.getCost() < amortization ) return 0;
        return super.getCost() - amortization;
    }
}
```

Question 2: The details of some methods of the class AssetManagementSystem are given below. (60p)

```
public AssetManagementSystem( StaffManagementSystem sms ) {
    assets = new Asset[300];
    assetCount = 0;
    this.staffSystem = sms;
}
public Asset searchAsset( String barcode ) {
    for( int i=0; i<assetCount; i++ )
        if( assets[i].getBarcode().equals(barcode) )
            return assets[i];
    return null;
}
public boolean addAsset( Asset newAsset ) {
    if( assetCount < assets.length && searchAsset( newAsset.getBarcode() ) == null ) {
        assets[assetCount] = newAsset;
        assetCount++;
        return true;
    }
    return false;
}
public void listsAssetsToBeScrapped( ) {
    for( int i = 0; i < assetCount; i++ ) {
        if( assets[i].getCost() == 0.0 ) {
            System.out.println(assets[i]);
        }
    }
}
public void listsAssetsOf( int id ) {
    if( staffSystem.findPersonnel(id) == null ) {
        System.out.println("Personnel with that ID does not exist.");
        return;
    }
    for( int i = 0; i < assetCount; i++ ) {
        if( assets[i].getPerson().getID() == id ) {
            found = true;
            System.out.println(assets[i]);
        }
    }
}
```

Question 3: Draw the UML sequence diagram of the method listsAssetsInLocation.

