Formatlı giris/çıkıs fonk.

Gömülü Sistemler Laboratuvarı

Yazdırma sınırlaması

Yazdırma sınırlaması

```c
#include <stdio.h>
int main() {
        int a = 50;
        float b = 99.9558;
        char c[] = "deneme";

        printf("%10d\n", a);
        printf("%10f\n", b);
        printf("%10s\n", c);
}
```

Yazdırma sınırlaması

```
#include <stdio.h>
int main() {
        int a = 50;
        int b = 150;

        printf("%06d\n", a);
        printf("%06d\n", b);
}
```

Sonrası Öncesi Problemi

Önce

Sonra

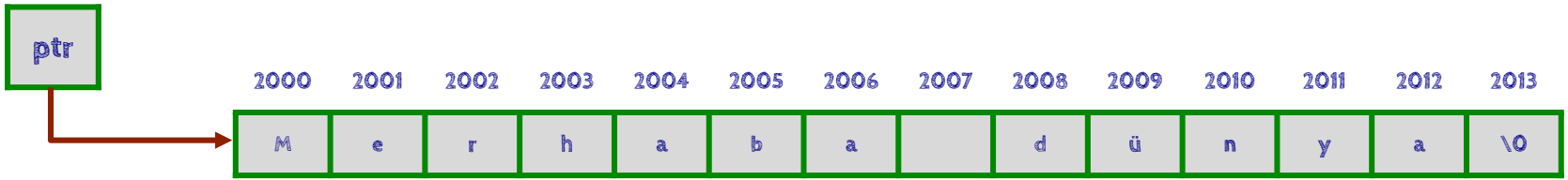
Sonrası Öncesi Problemi

```c
#include <stdio.h>
int main() {
        float b = 99.9558;

        // virgulden sonraki basamak sayisi
        printf("%.4f\n", b);
        printf("%.2f\n", b);
        printf("%10.3f\n", b);
}
```

Formatlı Yazdırma

```
#include <stdio.h>
int main() {
        char c[] = "deneme";

        printf("0:%s:\n", c); // Normal
        printf("1:%10s:\n", c); // 10 karakterlik alan saga dayali
        printf("2:%.3s:\n", c); // ilk 3 karakter
        printf("3:%-10s:\n", c); // 10 karakterlik alan sola dayali
        printf("4:%10.3s:\n", c); // 10 karakterlik alan ilk 3 karakter
        printf("5:%.3s:\n", c+2); // [2,5] arasi karakteri yazdir
}
```

String Yazdırma



String'e Yazdırma

```c
#include <stdio.h>
int main() {
	int a = 50;
		float b = 99.9558;

		/************ stringe yazdirma ****************/
		char s1[30];
		sprintf(s1, "sprintf ornek. %d %.2f", a, b);
		printf("%s\n", s1);
}
```

String'den Okuma

```
#include <stdio.h>
int main() {
        /************ string'den okuma ****************/
                char s2[] = "aaa 10 7.5";
                printf("s2: %s\n", s2);
        char x[20];
                int y;
                float z;

        sscanf(s2, "%s %d %f", x, &y, &z);
                printf("x: %s\n", x);
                printf("y: %d\n", y);
                printf("z: %f\n", z);
}
```

ard arda okuma

```c
#include <stdio.h>
#include <stdlib.h>
int main()
{
    char basharf;
    char ad[10];
    char soyad[10];
    char ad_soyad[10];
    printf("Ad Soyad: ");
   scanf("%9s", ad_soyad);
    while (getchar() != '\n')/* enter'a gelene kadar oku, ve islem yapmadan karakteri atla */;
    printf("Ad: ");
    scanf("%9s", ad); // max 9 harfli kelime oku
    while (getchar() != '\n') /* enter'a gelene kadar oku, ve islem yapmadan karakteri atla */;
    printf("Soyad: ");
    scanf("%9s", soyad); // max 9 harfli kelime oku
    while (getchar() != '\n'); /// enter'a kadar girilen karakterleri atla
    printf("İsminizin Baş Harfi: ");
    scanf("%c", &basharf); // harf oku
    while (getchar() != '\n'); /// enter'a kadar girilen karakterleri atla
    printf("\n\n");
    printf("Adınız Soyadınız : !%s!\n", ad_soyad);
    printf("Adınız : !%s!\n", ad);
    printf("Soyadınız : !%s!\n", soyad);
    printf("İsminizin Baş Harfi : !%c!\n", basharf);
    return 0;
}
```

Tablo Yazdırma

```
/**
asagidaki tabloyu ekrana yazdiran program

| A   65  | a   97  |
| B   66  | b   98  |
| C   67  | c   99  |
...
| Y   89  | y   121 |
| Z   90  | z   122 |

*/
```

Tablo Yazdırma

Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0	[NULL]	32	20	[SPACE]	64	40	@	96	60	`
1	1	[START OF HEADING]	33	21	!	65	41	A	97	61	a
2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
8	8	[BACKSPACE]	40	28	(	72	48	H	104	68	h
9	9	[HORIZONTAL TAB]	41	29	)	73	49	I	105	69	i
10	A	[LINE FEED]	42	2A	*	74	4A	J	106	6A	j
11	B	[VERTICAL TAB]	43	2B	+	75	4B	K	107	6B	k
12	C	[FORM FEED]	44	2C	,	76	4C	L	108	6C	l
13	D	[CARRIAGE RETURN]	45	2D	-	77	4D	M	109	6D	m
14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
15	F	[SHIFT IN]	47	2F	/	79	4F	O	111	6F	o
16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
17	11	[DEVICE CONTROL 1]	49	31	1	81	51	Q	113	71	q
18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	15	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	75	u
22	16	[SYNCHRONOUS IDLE]	54	36	6	86	56	V	118	76	v
23	17	[ENG OF TRANS. BLOCK]	55	37	7	87	57	W	119	77	w
24	18	[CANCEL]	56	38	8	88	58	X	120	78	x
25	19	[END OF MEDIUM]	57	39	9	89	59	Y	121	79	y
26	1A	[SUBSTITUTE]	58	3A	:	90	5A	Z	122	7A	z
27	1B	[ESCAPE]	59	3B	;	91	5B	[	123	7B	{
28	1C	[FILE SEPARATOR]	60	3C	<	92	5C	\	124	7C	|
29	1D	[GROUP SEPARATOR]	61	3D	=	93	5D	]	125	7D	}
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>

int main() {

    int i;
    for (i = 65 ; i <= 90 ; i++) {
        printf("|%c|\n", i);
    }

    return 0;
}
```

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>

int main() {

    int i;
    for (i = 'A' ; i <= 'Z' ; i++) {
        printf("|%c|\n", i);
    }

    return 0;
}
```

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>

int main() {

    int i;
    for (i = 'A' ; i <= 'Z' ; i++) {
        printf("|%c %d|\n", i,i);
    }

    return 0;
}
```

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>

int main() {

    int i;
    for (i = 'A' ; i <= 'Z' ; i++) {
        printf("|%c %d|%c %d|\n", i,i, i+32, i+32);
    }

    return 0;
}
```

Tablo Yazdırma

```
/**
asagidaki tabloyu ekrana yazdiran program

| A   65  | a   97  |
| B   66  | b   98  |
| C   67  | c   99  |
...
| Y   89  | y   121 |
| Z   90  | z   122 |

*/
```

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>

int main() {

    int i;
    for (i = 'A' ; i <= 'Z' ; i++) {
        printf("|%-1c %d|%-1c %d|\n", i, i, i+32, i+32);
    }

    return 0;
}
```

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>

int main() {

    int i;
    for (i = 'A' ; i <= 'Z' ; i++) {
        printf("|  %-3c %-4d|  %-3c %-4d|\n", i, i, i+32, i+32);
    }

    return 0;
}
```

Tablo Yazdırma

Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0	[NULL]	32	20	[SPACE]	64	40	@	96	60	`
1	1	[START OF HEADING]	33	21	!	65	41	A	97	61	a
2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
8	8	[BACKSPACE]	40	28	(	72	48	H	104	68	h
9	9	[HORIZONTAL TAB]	41	29	)	73	49	I	105	69	i
10	A	[LINE FEED]	42	2A	*	74	4A	J	106	6A	j
11	B	[VERTICAL TAB]	43	2B	+	75	4B	K	107	6B	k
12	C	[FORM FEED]	44	2C	,	76	4C	L	108	6C	l
13	D	[CARRIAGE RETURN]	45	2D	-	77	4D	M	109	6D	m
14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
15	F	[SHIFT IN]	47	2F	/	79	4F	O	111	6F	o
16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
17	11	[DEVICE CONTROL 1]	49	31	1	81	51	Q	113	71	q
18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	15	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	75	u
22	16	[SYNCHRONOUS IDLE]	54	36	6	86	56	V	118	76	v
23	17	[ENG OF TRANS. BLOCK]	55	37	7	87	57	W	119	77	w
24	18	[CANCEL]	56	38	8	88	58	X	120	78	x
25	19	[END OF MEDIUM]	57	39	9	89	59	Y	121	79	y
26	1A	[SUBSTITUTE]	58	3A	:	90	5A	Z	122	7A	z
27	1B	[ESCAPE]	59	3B	;	91	5B	[	123	7B	{
28	1C	[FILE SEPARATOR]	60	3C	<	92	5C	\	124	7C	|
29	1D	[GROUP SEPARATOR]	61	3D	=	93	5D	]	125	7D	}
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]

Tablo Yazdırma

```
/**
asagidaki tabloyu ekrana yazdiran program

|    0  |    32  | @   64  | `   96  |
|    1  | !  33  | A   65  | a   97  |
|    2  | "  34  | B   66  | b   98  |
|    3  | #  35 | C   67  | c   99  |
...
|    26  | :  58  | Z   90  | z   122 |
|    27  | ;  59  | [   91  | {   123 |
|    28  | <  60  | \   92  | |   124 |
|    29  | =  61  | ]   93  | }   125 |
|    30  | >  62  | ^   94  | ~   126 |
|    31  | ?  63  | _   95  |     127 |

*/
```

Tablo Yazdırma

```c
#include <stdio.h>
#include <stdlib.h>
int main() {
    int i;
    for (i = 0 ; i < 32 ; i++) {
        char a = i; // 1. sutundaki karakter
        if (!isprint(a))
            a = ' '; // ekrana yazdirilabilir karakter degilse bosluk ata
        char b = i+32; // 2. sutundaki karakter
        if (!isprint(b))
            b = ' ';
        char c = i+64; // 3. sutundaki karakter
        if (!isprint(c))
            c = ' ';
        char d = i+96; // 4. sutundaki karakter
        if (!isprint(d))
            d = ' ';
        printf("|  %-3c %-4d|  %-3c %-4d|  %-3c %-4d|  %-3c %-4d|\n", a, i, b, i+32, c, i+64, d, i+96);
    }

    return 0;
}
```

Sorular