Logic Building Assignment : 20

All below questions are depends on ASCII values of characters. Please consider below table to solve the questions.

Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char
0	00	Null	32	20	Space	64	40	@	96	60	`
1	01	Start of heading	33	21	!	65	41	A	97	61	a
2	02	Start of text	34	22	"	66	42	B	98	62	b
3	03	End of text	35	23	#	67	43	C	99	63	c
4	04	End of transmit	36	24	$	68	44	D	100	64	d
5	05	Enquiry	37	25	%	69	45	E	101	65	e
6	06	Acknowledge	38	26	&	70	46	F	102	66	f
7	07	Audible bell	39	27	'	71	47	G	103	67	g
8	08	Backspace	40	28	(	72	48	H	104	68	h
9	09	Horizontal tab	41	29	)	73	49	I	105	69	i
10	0A	Line feed	42	2A	*	74	4A	J	106	6A	j
11	0B	Vertical tab	43	2B	+	75	4B	K	107	6B	k
12	0C	Form feed	44	2C	,	76	4C	L	108	6C	l
13	0D	Carriage return	45	2D	-	77	4D	M	109	6D	m
14	0E	Shift out	46	2E	.	78	4E	N	110	6E	n
15	0F	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	Neg. 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	End 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	Substitution	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	□

1. Accept Character from user and check whether it is alphabet or not (A-Z a-z).

Input : F

Output : TRUE

Input : &

Output : FALSE

```
#define TRUE 1
#define FALSE 0

typedef int BOOL;

BOOL ChkAlpha(char ch)
{
	// Apply condition to check whether it is alphabet or not.
}

int main()
{
	char cValue = '\0';
	BOOL bRet = FALSE;

	printf("Enter the character");
	scanf("%c",&cValue);

	bRet = ChkAlpha(cValue);

	if(bRet == TRUE)
	{
		printf("It is Character");
	}
	else
	{
		printf("It is not a Character");
	}

	return 0;
}
```

2. Accept Character from user and check whether it is capital or not (A-Z).

Input : F

Output : TRUE

Input : d

Output : FALSE

```
#define TRUE 1
#define FALSE 0

typedef int BOOL;

BOOL ChkCapital(char ch)
{
	// Apply condition to check whether it is capital or not.
}

int main()
{
	char cValue = '\0';
	BOOL bRet = FALSE;

	printf("Enter the character");
	scanf("%c",&cValue);

	bRet = ChkCapital(cValue);

	if(bRet == TRUE)
	{
		printf("It is Capital Character");
	}
	else
	{
		printf("It is not a Capital Character");
	}

	return 0;
}
```

3. Accept Character from user and check whether it is digit or not (0-9).

Input : 7

Output : TRUE

Input : d

Output : FALSE

```
#define TRUE 1
#define FALSE 0

typedef int BOOL;

BOOL ChkDigit(char ch)
{
	// Apply condition to check whether it is digit or not.
}

int main()
{
	char cValue = '\0';
	BOOL bRet = FALSE;

	printf("Enter the character");
	scanf("%c",&cValue);

	bRet = ChkDigit(cValue);

	if(bRet == TRUE)
	{
		printf("It is Digit");
	}
	else
	{
		printf("It is not a  Digit");
	}

	return 0;
}
```

4. Accept Character from user and check whether it is small case or not (a-z).

Input : g

Output : TRUE

Input : D

Output : FALSE

```
#define TRUE 1
#define FALSE 0

typedef int BOOL;

BOOL ChkSmall(char ch)
{
	// Apply condition to check whether it is small case or not.
}

int main()
{
	char cValue = '\0';
	BOOL bRet = FALSE;

	printf("Enter the character");
	scanf("%c",&cValue);

	bRet = ChkSmall(cValue);

	if(bRet == TRUE)
	{
		printf("It is Small case Character");
	}
	else
	{
		printf("It is not a Small case Character");
	}

	return 0;
}
```

5. Accept division of student from user and depends on the division display exam timing. There are 4 divisions in school as A,B,C,D. Exam of division A at 7 AM, B at 8.30 AM, C at 9.20 AM and D at 10.30 AM. (Application should be case insensitive)

Input : C

Output : Your exam at 9.20 AM

Input : d

Output : Your exam at 10.30 AM

```
void DisplaySchedule(char chDiv)
{
	// Logic
}

int main()
{
	char cValue = '\0';
	BOOL bRet = FALSE;

	printf("Enter your devision");
	scanf("%c",&cValue);

	bRet = DisplaySchedule(cValue);

	return 0;
}
```