Mid Assignment - 2

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Course : SPL

Section : C

Ans to the Q: NO 1

a)

A[4] = {0};

A | 0 | 0 | 0 | 0 | ⟹ A

output =

492
986
494
990

id : 0492

n = 492

id : 0112410492

i = 0

A[0] = 492+0 = 492

A[0] % 2 != 0 F

i = 1

A[1] = 492+1 = 493

A[1] % 2 != 0 T

A[1] = 493 x 2 = 986

i = 2

A[2] = 492 + 2 = 494

A[2] % 2 != 0 F

i = 3

A[3] = 492+3 = 495

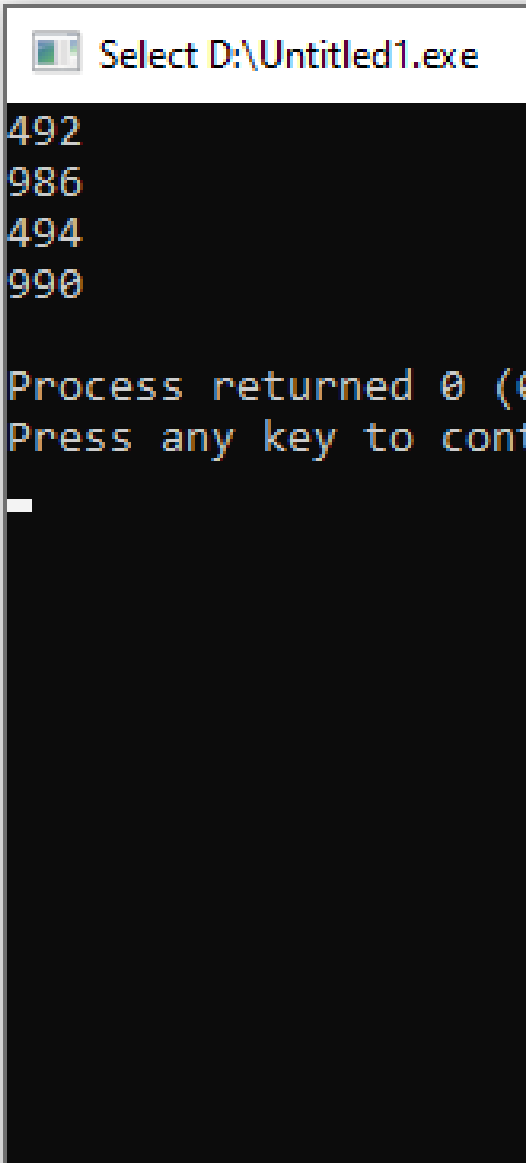
A[3] % 2 != 0 T

A[3] = 495 x 2 = 990

i = 4

4<4 F (end)

```c
#include<stdio.h>
int main()
{
    int A[4]= {0};
    int i, n;
    n = 492;
    for(int i=0; i<4; i++)
    {
        A[i] = n+i;
        if(A[i]%2!= 0)
        {
            A[i] *= 2;
        }
    }
     for(int i=0; i<4; i++)
    {
        printf("%d\n",A[i]);
    }
}
```



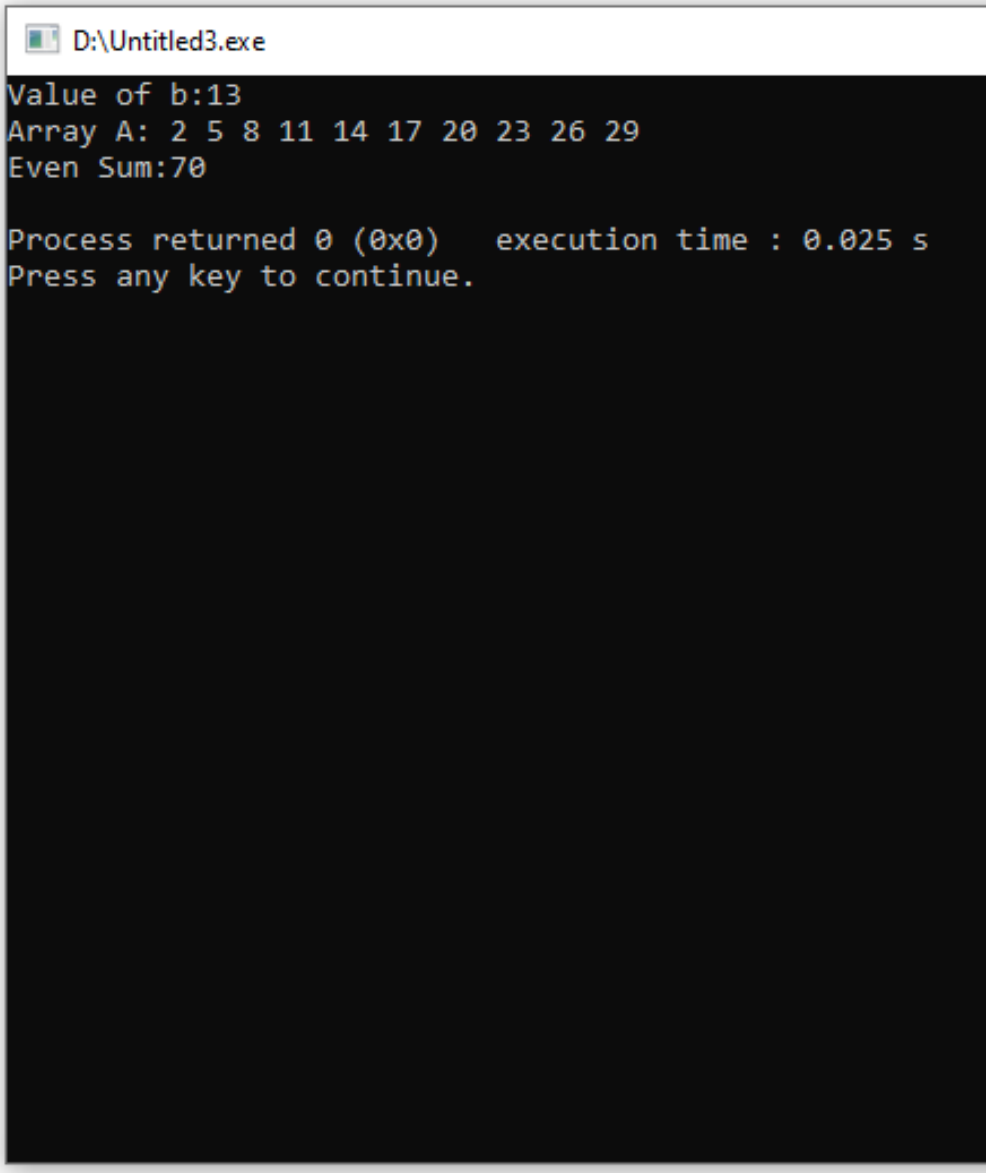
b)

```
#include<stdio.h>
int main( )
{ int A[4] = {0};
  int i=0;
  int n= 492;
do {
   A[i] = n+i;
    if (A[i]%2 !=0){
      A[i]*=2;}
      i++;
  }
  while(i<4);
  return 0;
}
```

Ans to the Q: NO: 2

```
#include<stdio.h>
int main( )
{
  int b= (92%21)+5;
  int A[10];
  int a=492;
  int sum=0;
  for(int i=0; i<10; i++)
  {
    A[i]=(a%7)+(3*i);
    if(i%2==0)
    {
    sum+=A[i];
    }
    printf("value of b: %d\n",b);
    printf("Array A: ");
    for( int i=0; i<10; i++)
    {printf("%d ",A[i]);
    }
    printf("\n Even Sum: %d\n", sum);
    return 0;
}
```

```c
#include <stdio.h>

int main()
{

    int b=(92%21)+5;

    int A[10];
    int a= 492;
    int sum=0;

    for(int i=0; i<10; i++)
    {
        A[i]=(a%7)+(3*i);
        if(i%2==0)
        {
            sum+=A[i];
        }
    }
    printf("Value of b:%d\n",b);
    printf("Array A: ");

    for(int i=0; i<10; i++)
    {
        printf("%d ",A[i]);
    }
    printf("\nEven Sum:%d\n",sum);

    return 0;
}
```



Ans to the Q: NO: 3

id : 0112410492

a = (9 2 7 3) + 2 = 4

i = 0

x = 0, y = 1, z = 0 + 1 = 1

J = 0

$t_3 = 0 + 1 = 1$.

arr[0][0] = 1

$t_1 = 1$, $t_2 = 1$

J = 1

$t_3 = 1 + 1 = 2$

arr[1][0] = 2

$t_1 = 1$, $t_2 = 2$

J = 2

$t_3 = 3$

arr[2][0] = 3

$t_1 = 2$, $t_2 = 3$

$t_1 = 1$, $t_2 = 1$

i = 1

x = 1, y = 1, z = 2

J = 0

$t_3 = 2$

arr[0][1] = 2

$t_1 = 1$, $t_2 = 2$

i	J	t_1	t_2	t_3	x	y	z	arr[i][i]
		0	1					
0	0	1	1	1	0	1	1	1
	1	1	2	2				2
	2	2	3	3				3
		1	1					
1	0	1	2	2	1	1	2	2
	1	2	3	3				3
	2	3	5	5				5
		1	2					
2	0	2	3	3	1	2	3	3
	1	2	5	5				5
	2	5	8	8				8
		2	8					
3	0	3	5	5	2	3	5	5
	1	5	8	8				8
	2	8	13	13				13
		3	5					

Final output

$t_1 = 3$, $t_2 = 5$, $t_3 = 13$

x = 2, y = 3, z = 5

arr[5][5];

1	2	3	5	
2	3	5	8	
3	5	8	13	

```
The final 2D array is:
1       2       3       5       0
2       3       5       8       0
3       5       8       13      0
0       4200048 0       16      0
0       0       0       0       8

Process returned 0 (0x0)   execution time : 0.028 s
Press any key to continue.
```

J=1

$t_3 = 1+2 = 3$

arr[1][1] = 3

$t_1 = 2, t_2 = 3$

J=2

$t_3 = 2+3 = 5$

arr[2][1] = 5

$t_1 = 3, t_2 = 5$

$t_1 = 1, t_2 = 2$

i=2

$x = 1, y = 2, z = 1+2 = 3$

J=0

$t_3 = 1+2 = 3$

arr[0][2] = 3

$t_1 = 2, t_2 = 3$

J=1

$t_3 = 2+3 = 5$

arr[1][2] = 5

$t_1 = 3, t_2 = 5$

J=2

$t_3 = 3+5 = 8$

arr[2][2] = 8

$t_1 = 5, t_2 = 8$

$t_1 = 2, t_2 = 3$

i=3

$x = 2, y = 3, z = 2+3 = 5$

J=0

$t_3 = 2+3 = 5$

arr[0][3] = 5

$t_1 = 3, t_2 = 5$

J=1

$t_3 = 3+5 = 8$

arr[1][3] = 8

$t_1 = 5, t_2 = 8$

J=2

$t_3 = 5+8 = 13$

arr[2][3] = 13

$t_1 = 8, t_2 = 13$

$t_1 = 3, t_2 = 5$

Now

i = 4

i < a

i < 4

false

end