

QUIZ TIME!!!

Structures and Unions

What is the output of the following program?

Printing Structure content

```
#include<stdio.h>
void main(){
    struct school{
        int rank;
        struct class{
            int strength;
        }class1;
    }school1;
    school1.rank = 1;
    class1.strength = 60;
    printf("\n The ranking of school1 is: %d", school1.rank);
    printf("\n The strength of class1 of school1 is: %d",
class1.rank);
}
```

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    printf("\n The strength of class1 of school1 is: %d",
class1.rank);
}
```

Structures and Unions

What is the output of the following program?

Arrays of Structures

```
#include<stdio.h>
void main(){
    struct employee{
        int emp_no;
    } emprec[];
    emprec[0].emp_no = 1;
    emprec[1].emp_no = 2;
    printf("\n %d %d", emprec[0].emp_no, emprec[1].emp_no);
}
```

Structures and Unions

Fix the following code to print "1 2"

Arrays of Structures

```
1. #include<stdio.h>
2. void main(){
3.     struct employee{
4.         int emp_no;
5.     } emprec[];
6.     emprec[0].emp_no = 1;
7.     emprec[1].emp_no = 2;
8.     printf("\n %d %d", emprec[0].emp_no, emprec[1].emp_no);
9. }
```

Structures and Unions

What is the output of the following program?

How do Unions work?

```
#include<stdio.h>
union date{
    int YY;
    int MM;
    int DD;
}date1;
void main(){
    date1.YY=2005;
    date1.MM=12;
    date1.DD=12;
    printf("\nThe date is %d:%d%d",
           date1.yy, date1.MM, date1.DD);
}
```

Structures and Unions

Is the following code legal?

Legal/Illegal ... Hmmm???

```
struct srt
{
    int num;
    struct srt var;
};
```

Structures and Unions

Is the following code legal?

Legal/Illegal ... Hmmm???

```
struct srt
{
    int num;
    struct srt *var;
};
```


Structures and Unions

Is the following code legal?

Legal/Illegal ... Hmmm???

```
typedef struct srt
{
    int num;
    type *var;
} type;
```

Structures and Unions

Is the following code legal?

Legal/Illegal ... Hmmm???

```
typedef struct
{
    int a;
    float b;
} s;
```

Understanding Pointer Definitions

What do these mean?

- 1 `int (*data) [10];`
 - ▶ What happens if we now do `data++` ?
- 2 `int **po2po2i;`
- 3 `const int* pi;`

`int i[20];`

Which of the following are allowed?

- 1 `pi = i;`
- 2 `*pi = 10;`
- 3 `pi[10]=20;`
- 4 `pi++;`

Using Pointers

What is wrong with the following program?

Using pointers correctly!

```
#include<stdio.h>
void main(){
    int x[] = {1,3,5,7,9};
    int *y;
    y=x;
    y=y*2;
    printf("\nThe value is %d",*y);
}
```

Using Pointers

Is there anything wrong with the following program?

Using pointers correctly!

```
#include<stdio.h>
void main(){
    int x[] = {1,3,5,7,9};
    int *y;
    y=x;
    y=y+2;
    printf("\nThe value is %d",*y);
}
```

If correct, what is the output of the program?