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9 Essential C Interview Questions *

Toptal sourced essential questions that the best C developers can answer. Driven from our community, we encourage experts to submit questions and offer feedback.

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1. What is a void pointer? Can you dereference a void pointer without knowing its type?

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2. What is the difference between `#include "..."` and `#include <...>`?

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3. What are dangling pointers? How are dangling pointers different from memory leaks?

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[Got it](#)

4. What is being declared in the following statement?

```
char (*x) (char*);
```

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5. What will be the output when the following code is executed? Explain.

```
#include <stdio.h>
#define SQUARE(a) (a)*(a)

int main() {
    printf("%d\n", SQUARE(4));
    int x = 3;
    printf("%d\n", SQUARE(++x));
}
```

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6. Why is it usually a bad idea to use `gets()`? Suggest a workaround.

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7. What is the difference between structs and unions?

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8. This code snippet converts a floating point number to an integer using casting:

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```
int i1 = (int) f;  
int i2 = * (int *) &f;  
  
printf("%d\n", i1);  
printf("%d\n", i2);
```

The following output is produced:

```
1  
1065353216
```

Can you explain why results differ?

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9. What is the output of the following program if run on a 32-bit operating system?

```
#include <stdio.h>  
int main()  
{  
    int a=-2;  
    printf("%x",a>>3);  
}
```

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- * These sample questions are intended as a starting point for your interview process. If you need additional help, explore our [hiring resources](#)—or let Toptal find the best [developers](#), [designers](#), [marketing experts](#), [product managers](#), [project managers](#), and [management consultants](#) for you.

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