

# SE Assignment 2

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**Question 1: Write a C program having some global variables that are declared but not used anywhere in the code. Run Splint for this C code and report the error generated.**

## Source Code:

```
#include <stdio.h>
int globalVar = 5;
int f(void){
    return 0;
}
int main(){
    return 0;
}
```

## Output:



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Himani\Desktop\SE> cd "c:\Users\Himani\Desktop\SE\Assignment 2\" ; if ($?) { gcc 1.c -o 1 } ; if ($?) { .\1 }
PS C:\Users\Himani\Desktop\SE\Assignment 2> splint 1.c
Splint 3.1.1 --- 12 April 2003

Finished checking --- no warnings
PS C:\Users\Himani\Desktop\SE\Assignment 2> 
```

**Question 2: Write a C program having some global variables that are declared but not initialized. Return this uninitialized variable in the main function. Run Splint for this C code and report the error generated.**

## Source Code:

```
#include <stdio.h>
int globalVar;

int main(){
    return globalVar;
}
```

## Output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\Himani\Desktop\SE\Assignment 2> cd "c:\Users\Himani\Desktop\SE\Assignment 2\" ; if ($?) { gcc 2.c -o 2 } ; if ($?) { . \2 }
PS C:\Users\Himani\Desktop\SE\Assignment 2> splint 2.c
Splint 3.1.1 --- 12 April 2003

2.c(2,5): Variable exported but not used outside 2: globalVar
A declaration is exported, but not used outside this module. Declaration can
use static qualifier. (Use -exportlocal to inhibit warning)

Finished checking --- 1 code warning
PS C:\Users\Himani\Desktop\SE\Assignment 2> █
```

**Question 3: Write a C program having some global variables that are declared but not initialized. Initialize some local variable using this uninitialized global variable. Run Splint for this C code and report the error generated. (For instance, assume global variable 'a' is declared as 'int' in the code. In the main function you can perform some operation such as 'int b =a'. This code should generate some error as the variable 'a' is not initialized in the code.)**

### Source Code:

```
#include <stdio.h>
int globalVar;

int main(){
    int a;
    a = globalVar;
    return 0;
}
```

### Output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\Himani\Desktop\SE\Assignment 2> cd "c:\Users\Himani\Desktop\SE\Assignment 2\" ; if ($?) { gcc 3.c -o 3 } ; if ($?) { . \3 }
PS C:\Users\Himani\Desktop\SE\Assignment 2> splint 3.c
Splint 3.1.1 --- 12 April 2003

3.c(2,5): Variable exported but not used outside 3: globalVar
A declaration is exported, but not used outside this module. Declaration can
use static qualifier. (Use -exportlocal to inhibit warning)

Finished checking --- 1 code warning
PS C:\Users\Himani\Desktop\SE\Assignment 2> █
```

**Question 4: Write a C program having structure as global variable. This structure can have more than two fields. Except one field, you can initialize values to all fields in the structure. Run Splint for this C code and report the error generated. (This code should generate error as you have one uninitialized field in structure)**

### Source Code:

```
#include <stdio.h>

struct Point{
```

```





    int x, y, z;
};

int main(){
    struct Point p1 = {.y = 0, .z = 1};
    return 0;
}

```

## Output:

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

 Code   

```

PS C:\Users\Himani\Desktop\SE\Assignment 2> cd "c:\Users\Himani\Desktop\SE\Assignment 2\" ; if ($?) { gcc 4.c -o 4 } ; if ($?) { .
\4 }
PS C:\Users\Himani\Desktop\SE\Assignment 2> splint 4.c
Splint 3.1.1 --- 12 April 2003

4.c: (in function main)
4.c(8,20): Initializer block for p1 has 2 fields, but struct Point has 3
        fields: <error>, <error>
        Initializer does not set every field in the structure. (Use -fullinitblock to
        inhibit warning)
4.c(8,15): Variable p1 declared but not used
        A variable is declared but never used. Use /*@unused@*/ in front of
        declaration to suppress message. (Use -varuse to inhibit warning)

Finished checking --- 2 code warnings
PS C:\Users\Himani\Desktop\SE\Assignment 2>

```