

```
1  #include <stdio.h>
2
3  int main(void)
4  {
5      //variable declarations
6      int num = 5;
7      const int* const ptr = &num; // Read this line from right to left => "ptr
      // is a constant (const) pointer (*) to integer (int) constant (const)."
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9      //code
10     printf("\n");
11     printf("Current Value Of 'num' = %d\n", num);
12     printf("Current 'ptr' (Address of 'num') = %p\n", ptr);
13
14     // The following line does NOT give error ... as we are modifying the value
      // of the variable individually
15     num++;
16     printf("\n\n");
17     printf("After num++, value of 'num' = %d\n", num);
18
19
20     // The following line gives error and is hence commented out.
21     // We cannot alter the 'ptr' value as 'ptr' is "a constant pointer to
      // constant integer".
22     // With respect to the pointer, the value it points to is constant AND the
      // pointer itself is also constant.
23     // Uncomment it and see the error.
24
25     // ptr++;
26
27     // The following line also give error and is hence commented out.
28     // We cannot alter the value stored in 'ptr' as 'ptr' is "A constant
      // pointer to constant integer"
29     // With respect to the pointer, the value it points to is constant AND the
      // pointer itself is also constant.
30     // Uncomment it and see the error.
31
32     // (*ptr)++;
33
34     return(0);
35 }
```

36

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37 // CONCLUSION :
38 // As "ptr" is a "constant pointer to a constant integer" - we cannot change
      // the value stored at address "ptr" AND we cannot change the 'ptr' (Address)
      // itself.
39 // We can change the value of the variable (num) individually - whose address
      // is contained in "ptr".
40 // We cannot also change the "the value at address of ptr" - we cannot change
      // the value of "num" with respect to "ptr" => (*ptr)++ is NOT allowed
41 // We cannot change the value OF 'ptr' => That is we cannot store a new address
      // inside 'ptr' => So, ptr++ is also NOT allowed
42
43
44
```