**CIS 246 – Spring 2020**

|  |  |
| --- | --- |
| **Class Project:** | **5** |
| **Points:** | **10** |
| **Chapter(s):** | **6** |
| **File(s) to Submit:** | **CP05.cpp** |
| **Due:** | **March 4, 11:59 pm** |

**Description**

Write a C++ program that uses recursion to print the even numbers from 1 to 50.

**Instructions**

1. Open Dev-Cpp and verify the compiler options settings (if necessary).
2. Create a New C++ Console Application Project (optional)
3. Create a new source code file called CP05.cpp.
4. In CP05.cpp, add the following code to a main function:

Write the statement to call the function **printEvens**, passing the value 1 as an argument.

1. In CP05.cpp, add a **printEvens** function outside of main, as described below. Be sure to add a prototype for this at the top of CP05.cpp if necessary.

**Requirements for the printEvens Function**

**Return value**: void  
**Parameter**: one int

**Step 1:**  
Check for the BASE CASE. We want to stop executing this function when the argument passed in is greater than the last value we want to print. Write the statement that performs this check.

To stop executing a function that has a void return value, write a return statement on a line by itself: return;

**Step 2:**Determine if the argument passed in is even. If it is even, print it. The definition of an even number is a number divisible by 2 with 0 remainder.

**Step 3:**  
Execute the RECURSIVE CASE by calling the printEvens function with a value that is 1 more than the argument passed in.

**To Submit:**

1. Close Dev-Cpp and save anything if prompted.
2. Locate the CP05.cpp file on disk. Send it to a compressed folder. Use the default name for the zip or name it whatever you like.
3. **Submit only the zipped file** to the dropbox on Canvas. Do not submit any other file(s) except CP05.cpp within a zip. The zip should not include a folder structure, or DevCpp project files.