Exercise 3
Introduction to C Programming Language

1. Launche Microsoft Visual C++ 6.0

☑ Click on **Start** → **Programs** → **Microsoft Visual Studio 6.0** → **Microsoft Visual C++ 6.0**

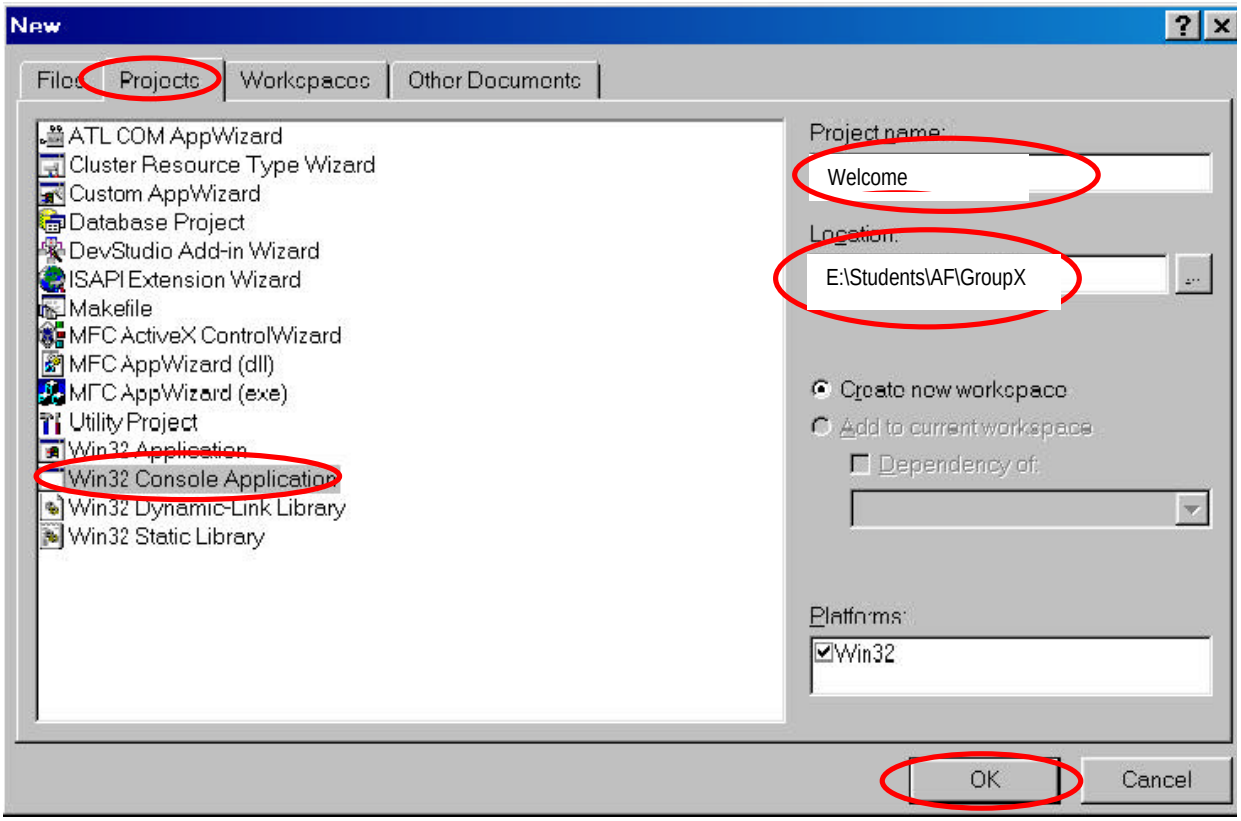
2. Create a new project

☑ Click on **File** → **New** in the toolbar.

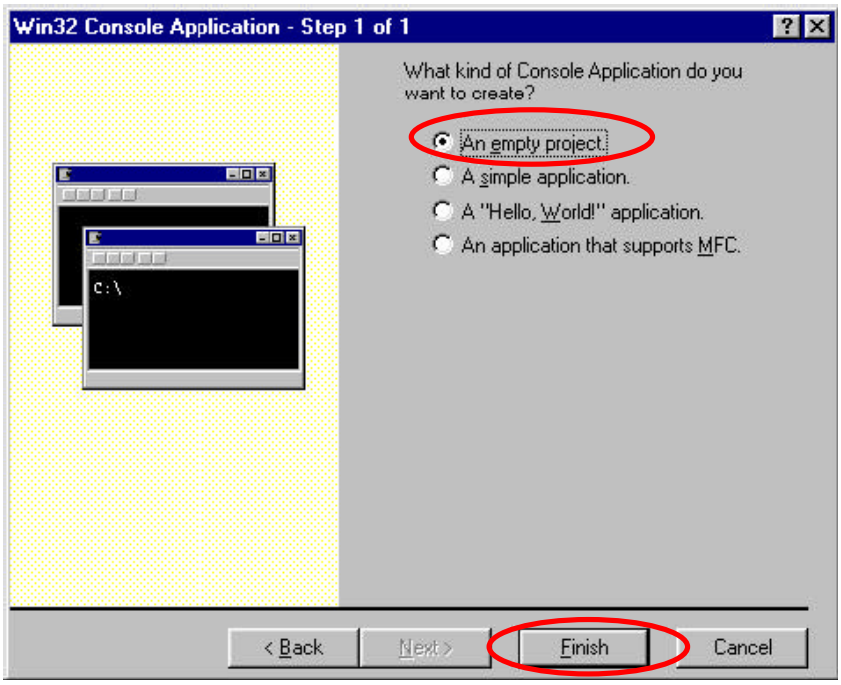
☑ In the new window that pops up, select the **Projects** tab. Select **Win32 Console Application** in the list. On the right hand side, type in ***Welcome*** in the **Project Name** field.

☑ In **Location** field select the directory of your group (i.e. **E:\Students\AF\GroupX**).

☑ Click **OK**.



☑ Select **An Empty Project** and click **Finish** in the next window.



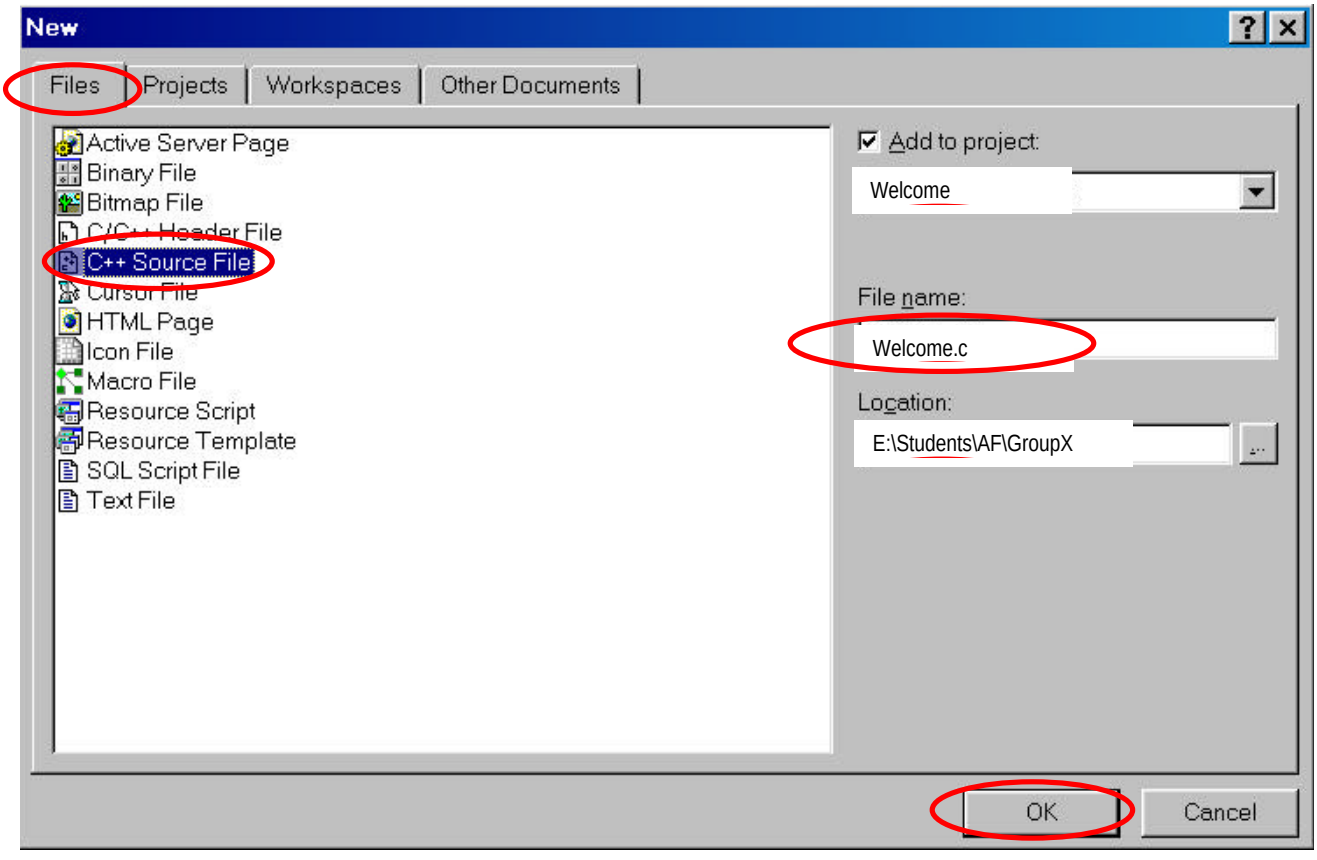
3. Add a new source file to the project

☑ Click on **File** → **New** in the toolbar.

☑ In the new window that pops up, select the **Files** tab. Select **C++ Source File** in the list.

☑ Enter the name of your source file **Welcome.c** in the **File Name** field.

☑ Click **OK**.



4. Enter the source code that prints the sentence: **Hi! Welcome at the TU!**

```
#include <stdio.h>
int main ()
{
  printf ("Hi! Welcome at the TU!\n");
  return 0;
}
```

5. Compile and link the program

☑ Click on **Build/Rebuild All**

If it compiles and links successfully, the window at the bottom of your screen will display 0 error(s), 0 warning(s)

6. Run the program

☑ Click on **Build/Execute Wercome.exe**

The output window displays:

Hi! Welcome at the TU!

When you press any key, the window will be taken down and the program will stop.

7. Save the project

☑ Click on **File/Save All**.

8. Try to call the function **printf** like

```
printf ("Hi! Welcome at the TU!

");
```

9. Compile and run the program.

10. Experiment to find out what happens when **printf**'s argument string contains **\a**.

```
printf ("Hi! Welcome at the TU!\a");
```

11. Compile and run the program.

12. Add a new source file to the project with a name **Welcome1.c** and enter the following code:

```
#include <stdio.h>
int main ()
{
  printf ("Hi! ");
  printf ("Welcome ");
  printf ("at ");
  printf ("the ");
  printf ("TU!");
  printf ("\n");
  return 0;
}
```

13. Compile and run the program.

14. Add a new source file to the project with a name **Velocity.c** that converts the velocity from miles per hour into kilometers per hour, where 1 mile = 1.60934 kilometers (km).

```
#include <stdio.h>
#define MILES_INTO_KILOMETERS 1.60934f   /* Conversion constant */
int main ()
{
   float velocity_mph, velocity_kmph;
   printf ("Enter the velocity of the aircraft [miles/hour]: ");
   scanf ("%f", &velocity_mph);
   velocity_kmph = MILES_INTO_KILOMETERS * velocity_mph;
   printf ("The velocity of the aircraft = %.3f [km/h]\n", velocity_kmph);
   return 0;
}
```

15. Compile and run the program.

16. Close the project

☑ Click on **File/Close Workspace**.