How to create a project with STM32 Workbench

Requirements:
- **System Workbench for STM32**, download from http://www.openstm32.org
- **STM32CubeF4 software**, download from http://www.st.com/en/embedded-software/stm32cubef4.html (click on "Get Software" button on the "STM32CubeF4" line, below in the page; you will be requested to insert your email address and the download link will be sent in a mail message)
- **STM32_UNICT_LIB**, download from http://www.dmi.unict.it/~santoro/index.php?p=13

STEP 1: Create the project
1. Choose menu item **File → New → C Project**
2. Enter your **Project Name** and from **Project Type** select **Ac6 STM32 MCU Project**; click on **Next**
3. Click on **Next** again (use defaults in **Select Configuration**)
4. In **MCU Configuration**, select the board **NUCLEO-F401RE**, click on **Next**
5. In **Project firmware configuration**, select **No Firmware** and click on **Finish**

STEP 2: Insert additional includes, libraries and Defines
1. Choose menu item **Project → Properties**
2. From the left tree, select **C/C++ General → Paths and Symbols**
3. Select tab **#Symbols** and then language **GNU C**
4. Click on **Add** and insert the string **STM32F401xE** in the **Name** field, then click **Ok**
5. Select tab **#Includes** and then language **GNU C**
6. Click on **Add** and then, from the **"Add directory path"** window, Click **Filesystem**
7. Locate your **STM32Cube** folder and search for directory **"./Drivers/CMSIS/Include"**, then click **Ok**
8. Repeat steps 6 and 7 by searching for directory **"./Drivers/CMSIS/Device/ST/STM32F4xx/Include"**
9. Repeat steps 6 and 7 by searching, in the **stm32_unict_lib** folder, for directory **"./inc"**
10. Select tab **#Source Location** and click on **Link Folder**
11. In the New Folder window, check the **"Link to folder in the file system"** box, click on Browse and select the **stm32_unict_lib** folder, then click **Ok**
12. Click **OK** to close the **Project Settings** dialog and select **Yes** if the system ask to rebuild the project

STEP 3: Remove the default startup file
1. In the **Project Explorer**, locate the **startup** folder and delete file **startup_stm32.s** (right-click → Delete)

STEP 4: Create your main file
1. Right click on **src** in the **Project Explorer** and select **New → Source File**
2. Enter your filename with ".c" suffix then click on **Finish**