# Setting up SDL 2 on XCode

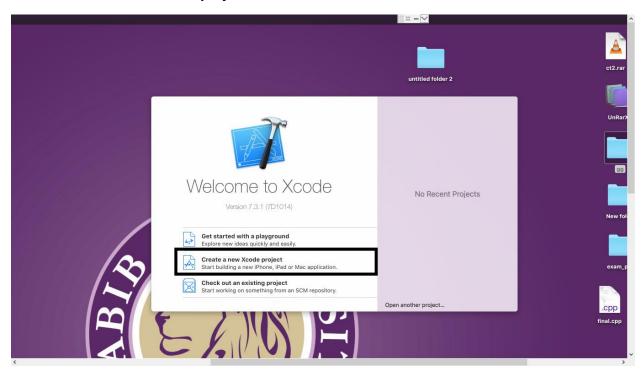
1. Click on Launchpad.



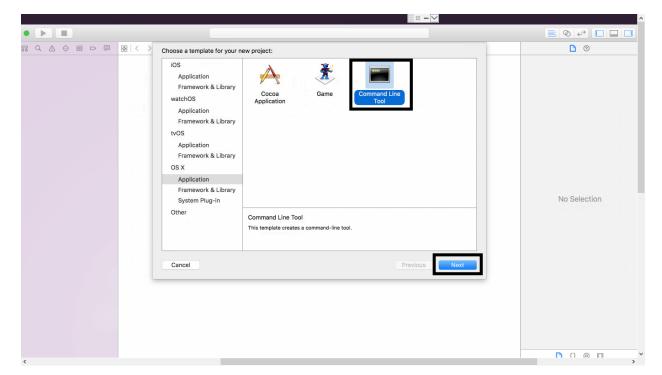
**2.** Type **Xcode** on Search Bar. Click on **Xcode**.



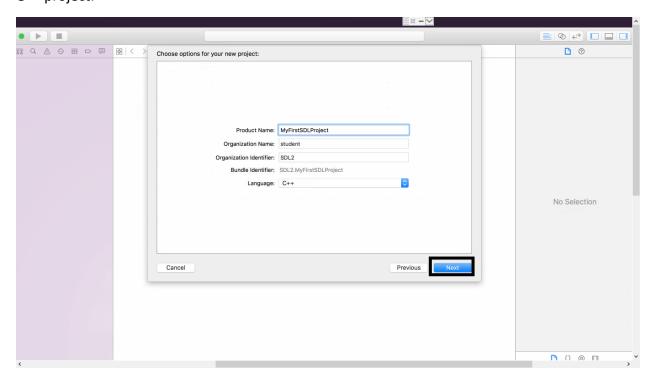
3. Click on Create a new Xcode project.



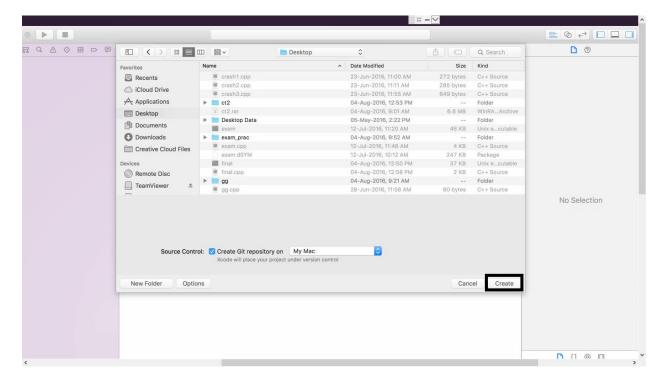
**4.** Click on **Command Line Tool**. Click on **Next**.



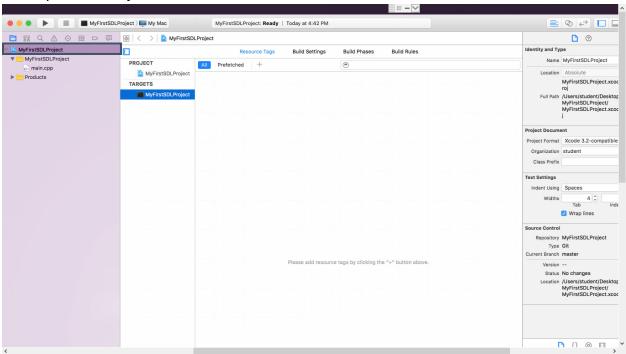
5. Type Product Name – MyFirstSDLProject (It can be any name. For this tutorial, we are keeping this name). Make sure Language is set to C++.
You can set up this part of the project however you want, but do make sure to set it up as C++ project.



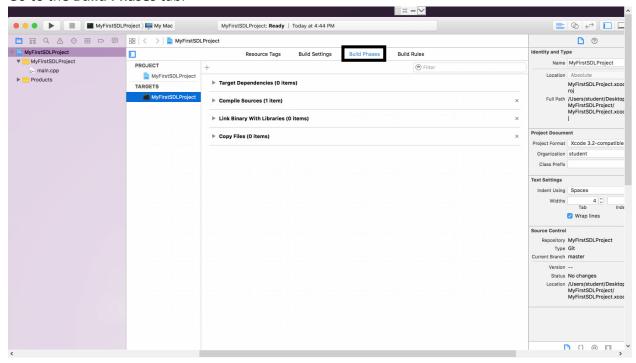
6. Click on Create.



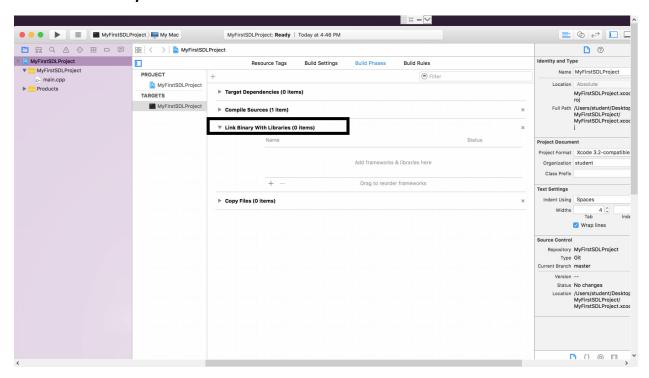
7. Select your SDL Project.



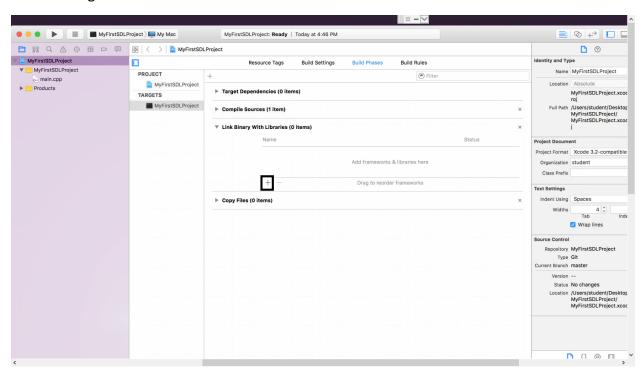
8. Go to the Build Phases tab.



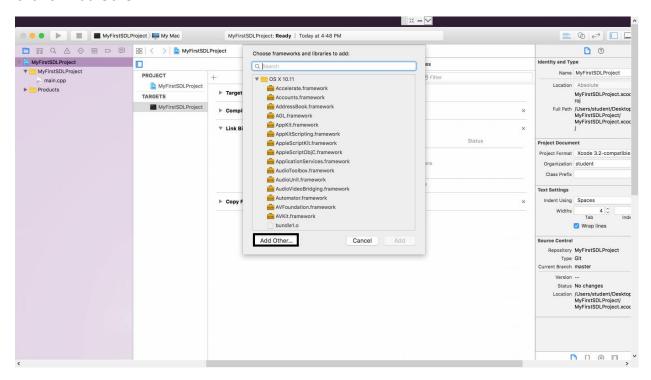
9. Click on Link Binary With Libraries Section.



10. Click on + Sign.

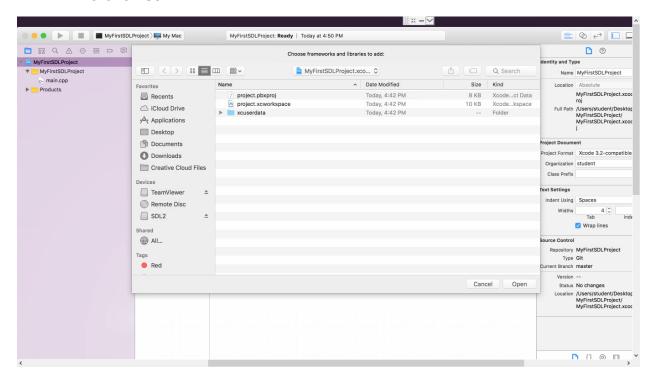


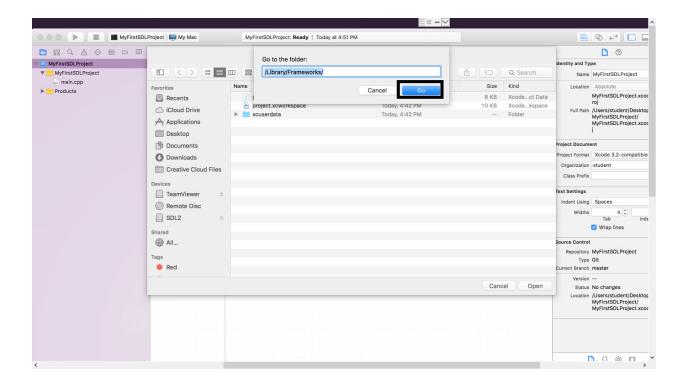
#### 11. Click on Add Other.



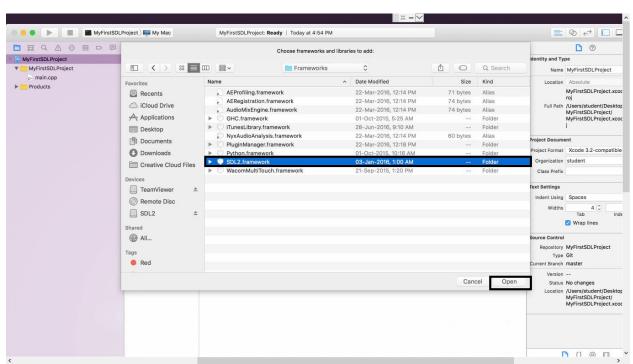
## 12. Go to /Library/Frameworks/ using command+shift+g.

- Press command+shift+g
- Type /Library/Frameworks
- Click on Go.

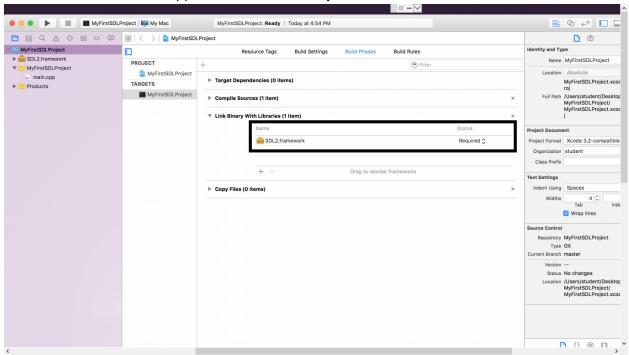




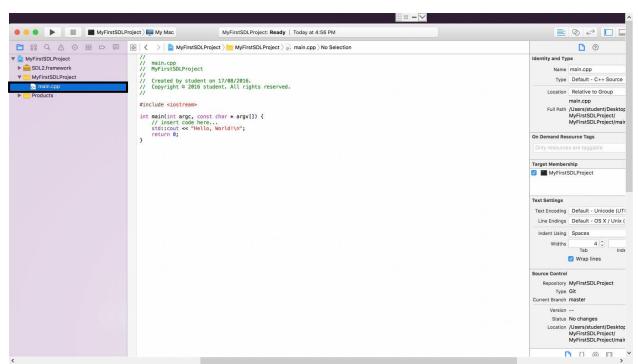
### 13. Select the SDL2.Framework and hit Open.



14. SDL2.framework will appear inside Link Binary With Libraries Section.



### 15. Click on main.cpp



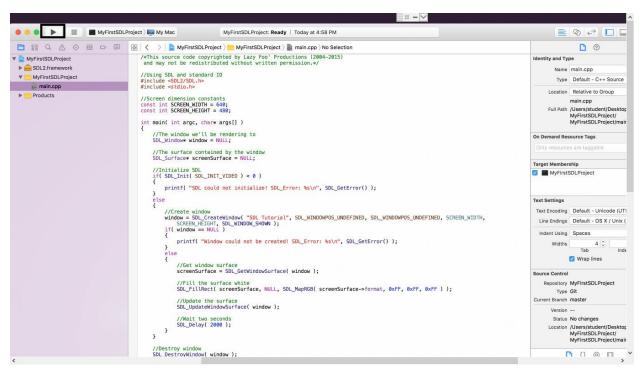
#### **16.** Copy the following code on **main.cpp**.

```
#include <SDL2/SDL.h>
#include <stdio.h>
//Screen dimension constants
const int SCREEN_WIDTH = 640;
const int SCREEN_HEIGHT = 480;
int main( int argc, char* args[] )
  //The window we'll be rendering to
  SDL_Window* window = NULL;
  //The surface contained by the window
  SDL_Surface* screenSurface = NULL;
  //Initialize SDL
  if( SDL_Init( SDL_INIT_VIDEO ) < 0 )</pre>
    printf( "SDL could not initialize! SDL_Error: %s\n", SDL_GetError() );
  }
  else
    //Create window
    window = SDL_CreateWindow( "SDL Tutorial", SDL_WINDOWPOS_UNDEFINED,
SDL_WINDOWPOS_UNDEFINED, SCREEN_WIDTH, SCREEN_HEIGHT, SDL_WINDOW_SHOWN);
    if( window == NULL )
      printf( "Window could not be created! SDL_Error: %s\n", SDL_GetError() );
    else
      //Get window surface
      screenSurface = SDL_GetWindowSurface( window );
      //Fill the surface white
      SDL_FillRect( screenSurface, NULL, SDL_MapRGB( screenSurface->format, 0xFF, 0xFF,
0xFF ) );
      //Update the surface
       SDL_UpdateWindowSurface( window );
      //Wait two seconds
       SDL_Delay( 2000 );
  }
  //Destroy window
  SDL_DestroyWindow( window );
  //Quit SDL subsystems
  SDL_Quit();
  return 0;
}
```

```
MyFirstSDLProject: Ready | Today at 4:57 PM
● ● ● ■ MyFirstSDLProject 〉 ■ My Mac
                                                                                                                                                                                                                                               🛅 🔛 🔍 🛆 🛇 🎹 🗅 🗐 🔡 🤇 🖒 🕍 MyFirstSDLProject ) 🎦 MyFirstSDLProject ) 🦣 main.cpp ) No Selection
                                                                                                                                                                                                                                                           D 0
                                                         /*This source code copyrighted by Lazy Foo' Productions (2004-2015) and may not be redistributed without written permission.*/
  ► SDL2.framework

▼ MyFirstSDLProject
                                                                                                                                                                                                                                               Name main.cpp
                                                        //Using SDL and standard IO
#include <SDL2/SDL.h>
#include <stdio.h>
o- main.cpp
                                                                                                                                                                                                                                              Location Relative to Group
  ▶ Products
                                                        //Screen dimension constants
const int SCREEN_WIDTH = 640;
const int SCREEN_HEIGHT = 480;
                                                                                                                                                                                                                                                       main.cpp
                                                                                                                                                                                                                                             Full Path /Users/student/Desktor
MyFirstSDLProject/
MyFirstSDLProject/mair
                                                        int main( int argc, char* args[] )
                                                              //The window we'll be rendering to SDL_Window* window = NULL;
                                                              //The surface contained by the window SDL_Surface* screenSurface = NULL;
                                                              //Initialize SDL
if( SDL_Init( SDL_INIT_VIDEO ) < 0 )
                                                                                                                                                                                                                                      MvFirstSDLProject
                                                                   printf( "SDL could not initialize! SDL_Error: %s\n", SDL_GetError() );
                                                                                                                                                                                                                                       Text Settings
                                                                                                                                                                                                                                        Text Encoding | Default - Unicode (UTI
                                                                   //Create window window = SDL_CreateWindow( "SDL_Tutorial", SDL_WINDOWPOS_UNDEFINED, SDL_WINDOWPOS_UNDEFINED, SCREEN_WIDTH, SCREEN_EIGHT, SDL_WINDOW_SHOWN ); if ( window == NULL ) {
                                                                                                                                                                                                                                         Line Endings Default - OS X / Unix (
                                                                                                                                                                                                                                         Indent Using Spaces
Widths 4 0 Inde
                                                                       printf( "Window could not be created! SDL_Error: %s\n", SDL_GetError() );
                                                                                                                                                                                                                                                      Wrap lines
                                                                        //Get window surface
screenSurface = SDL_GetWindowSurface( window );
                                                                                                                                                                                                                                          Repository MyFirstSDLProject
Type Git
                                                                        //Fill the surface white
SDL_FillRect( screenSurface, NULL, SDL_MapRGB( screenSurface->format, 0xFF, 0xFF, 0xFF) );
                                                                                                                                                                                                                                       Current Branch master
                                                                        //Update the surface
SDL_UpdateWindowSurface( window );
                                                                        //Wait two seconds
SDL_Delay( 2000 );
                                                                                                                                                                                                                                             Location /Users/student/Desktor
MyFirstSDLProject/
MyFirstSDLProject/mair
                                                                                                                                                                                                                                                     n a a m
```

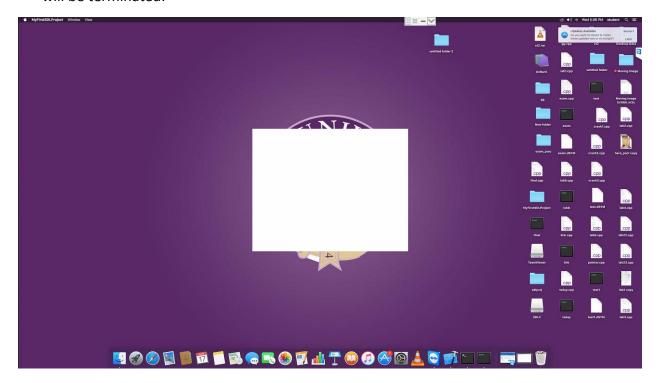
# **17.** Click on **Run** (▶ Sign)



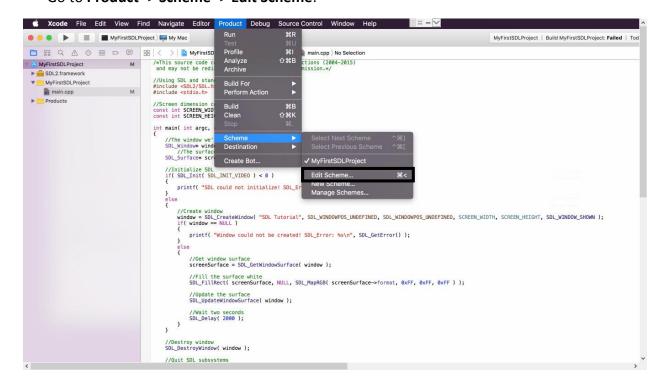
18. Build will be successful.



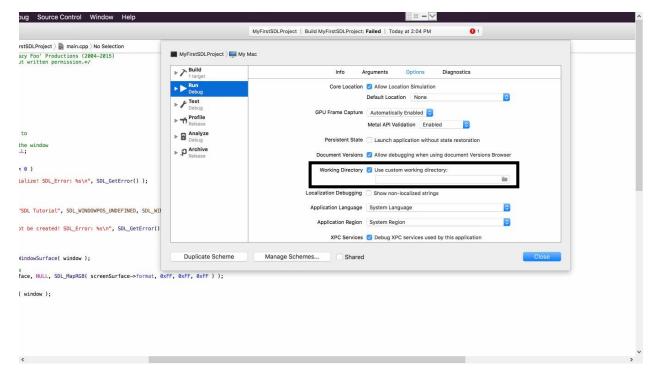
**19.** Code will build and run and will show a **white window** for 2 seconds and then the program will be terminated.



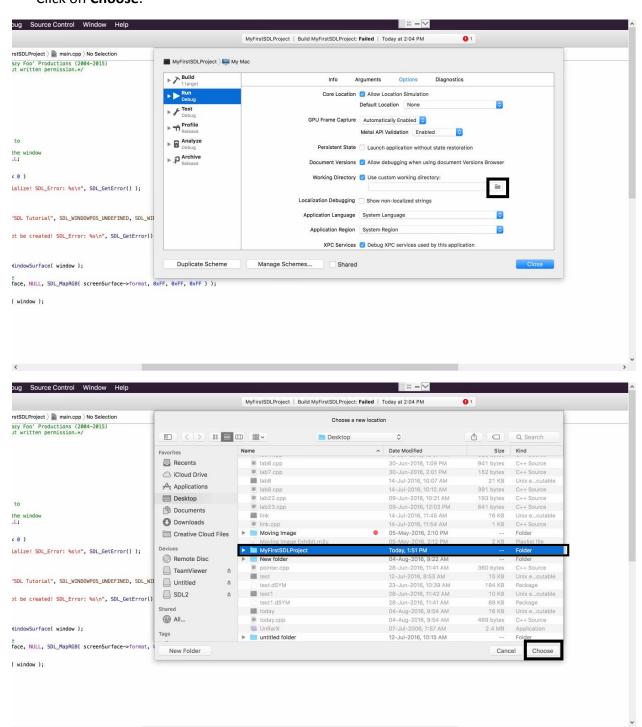
20. In order for your application to be able to find the files you use for the application (for example images, fonts, or sound etc.), you need to set the working directory.
Go to Product -> Scheme -> Edit Scheme:



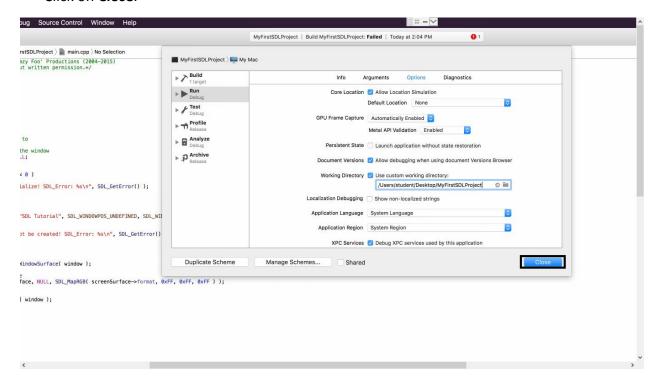
21. Under the Run Section, Check Use Custom Working Directory.



**22.** Set the working directory by clicking on the folder symbol. The working directory is where the application will think it is operating in. Set it as your Project Directory. Click on **Choose**.



**23. Working Directory** has been configured successfully. Click on **Close**.



If your project can't load files for images, fonts, or sound it's because you did not set up your working directory properly.

Congratulations! You have successfully setup SDL2 on XCode!