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| Advance Programming |
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Section: **BESE-4A**et us shown in the figure belownget us shown in the figure belowng

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**Submitted To: SIR FAHAD AHMED SATTI**

# Smart Pointers Implementation

## Introduction

In this assignment, we are asked to implement implementation of Strings using the following types of smart pointers:

* Copied Pointers
* Owned Pointers
* COW with Reference Counting
* COW with Reference Linking

## How to run:

The project consists of 4 projects each consisting of one condition of the assignment. To run the projects, for each project first create project in visual studio 2015, then add source files, then implement source.cpp , then add header files StringBuffer.h and StringBuffer.cpp

## Approach:

For completing the assignment, first concept of smart pointers and how to interact with them is understood with links provided in lectures as well as documentation available on the internet.

To implement each project, there was different approach to fulfill more or less the same task to complete building of smart string.

## Profiling data:

For profiling data, Visual studio 2015 provides with the time of the execution when it is executed, have attached the screenshots of the outputs of the 4 projects. Some screenshots have been attached with the files for idea.