# Technology

In order to create the web application and under the specifications of the given. I used ASP.NET MVC5. It is a framework for building scalable, standards-based web applications using well-established design patterns and the power of ASP.NET and the .NET Framework.

In addition to the MVC 5 other technologies have been used. ASP.NET Identity and EF Entity which minimizes the interaction with the database directly and mostly creating and designing the relation schema. Bootstrap framework is also used to achieve the responsive look and feel.

In order to read emails of Gmail, IMAP protocol should be used which is an application-layer Internet standard protocol used by local e-mail clients to retrieve e-mail from a remote server over a TCP/IP connection. Also for sending emails SMTP protocol is used to send emails.

# Pre-Conditions

Gmail has some restrictions for 3rd party library to access webmail inbox. So before using the web application to access the inbox following steps must be followed:

After signing in in Gmail, Go to <https://www.google.com/settings/security/lesssecureapps> and choose “Allow” to let less secure apps access your Google account.

Also for enabling IMAP:

* Sign in to the Google Admin console.
* From the dashboard, go to Apps > Google Apps > Gmail > Advanced settings.
* In the Organizations section, select the organizational unit for which you want to configure settings.
* Under POP and IMAP Access, select or clear the check box for Disable POP and IMAP access for all users in the domain.

# Design

The application design was divided into three kinds of components, the model–view–controller design defines the interactions between them.

* A controller can send commands to the model to update the model's state (e.g., editing a document). It can also send commands to its associated view to change the view's presentation of the model (e.g., by scrolling through a document).
* A model stores data that is retrieved to the controller and displayed in the view. Whenever there is a change to the data it is updated by the controller.
* A view requests information from the model that it uses to generate an output representation to the user.

The following diagrams show the flow of the web application:





