

KEYSCORE



By

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Major Project
(CS-486)

AT

School Of Computer Science

LINGAYA'S UNIVERSITY, FARIDABAD

SESSION 2017-2018

PROJECT REPORT
ON
KEYSCORE

By

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PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS OF THE COURSE

Major Project
(CS-486)

At

School of Computer Science
Lingaya's University

Guide

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LINGAYA'S UNIVERSITY, FARIDABAD

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LINGAYA'S UNIVERSITY

BONAFIDE CERTIFICATE

Certified that this project report “KEYSCORE” is the bonafide work of **SHUBHAM MAHAJAN (14CS005)**, **PRAGYA RAJAN (14CS021)** and **CHETNA BHARDWAJ (14CS043)** who carried out the project in collaboration with **School of Computer Science, Lingaya's University**, embodies the work done by him under the guidance of **Ms. RIDHIKA** and **Ms. SHILPA**, Assistant Professor(SCS) towards partial fulfilment of the requirements of the Degree of Bachelor of Technology in Computer Science and Engineering from Lingaya's University, Haryana.. They have fulfilled all the requirements needed as per the rules of the University, for the completion of Project. This work is original and has not been submitted in part or in full to any University or Institution.

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LINGAYA'S UNIVERSITY

CERTIFICATE OF AUTHENTICATION

We solemnly declare that this project “**Virtual Labs-SCS Portal**” is the bonafide work done purely by us, carried out under the supervision of **Ms. RIDHIKA and Ms. SHILPA, Assistant Professor (SCS)** towards partial fulfilment of the requirements of the Degree of Bachelor of Technology in Computer Science and Engineering from Lingaya's university, Faridabad, during the year 2014-2018.

It is further certified that this work has not been submitted, either in part or in full, to any other department of the Lingaya's university, or any other University, institute or elsewhere, or publication in any form.

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ACKNOWLEDGEMENT

In completing my project, we are very thankful to many individuals and we must place on record our sincere thanks to all of them.

First of all, we would like to express our deep sense of gratitude to our supervisor Ms. RIDHIKA and Ms. SHILPA, Assistant Professor(SCS) who gave us his invaluable guidance glowing with his words of encouragement and inspiration, criticisms and discussions throughout the problem designing.

We are very much grateful to Prof Latha Banda (H.O.D. (SCS)) for her valuable support and cooperation in conceptualizing the project/research work and to all those outstanding individuals with whom we have worked, who helped us in understanding the concept.

We are highly thankful to our family members for their all-time support in initiating us and bringing a spark in us to pursue the work.

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ABSTRACT

The work presented in this report involved developing KEYSORE that enables the students to download the study material, pictures or attend live seminars from this portal. Along with this the user gets a required information about the day to day college life and all the latest news. The Keyscore portal acts as a one stop portal for the students where they will get all the things required for their college life be it notes from the teachers, pictures of events or live seminars or any college news.

Chapter – 1

1.1 Introduction

The objective of the project is to build a software that is specifically designed for the Students in the Educational Institutions with aim of providing them with a tool that can help them in planning their study schedule by providing the required study material of all the subjects. Which will save there precious time as they are not required to search for the study material on web. The Software also contains various other tools and utilities that will help them in their academics.

The basic question that primarily arises for any proposed project is why it is essential to build it. Well here we are going to justify why there is a need to create such an application.

1.2 Objective

This software solution is designed and implemented for the benefit of the students as well as faculty and institution. As it is one stop information portal which will be having all the required information regarding current subjects and institution also. This software also have the feature of conducting live seminar and presentation by connecting it to the place where the seminar or the event is going on.

The main objectives for this project are as follows:

- To create one stop information portal.
- To provide better memory and time management to users.
- Increased efficiency.

This software package can be readily used by non-programming personal avoiding human handled chance of error.

1.3 OUTLINE:

In a nutshell the following report will explain and summarize our project in a more clear way. But it can be easily stated that the main functionality of this application will be to save time and be more user friendly and easy to use. From interface to working everything in this application is of basic level so that anyone can use it and gain maximum benefit from it.

Chapter -2

2.1 Requirement Analysis

In this part of the report we would essentially discuss about the requirement analysis of our project. Our project KEYSORE is a web based application with emphasis on simplicity, preciseness and to the point functionality. So for creating such a product the software required or the resources needed must not only be stable and readily available in market but also robust, strong and effective for few years to come. In our project henceforth we have used technologies like Visual Studio, Heroku which are still in use and are in heavy demand in the future as well. Also since our application is lightweight so there no as such OS specifications or changes that would be required for installing or using our application. The other primary requirements for the development and effective usage of our application would be a resilient backend server that we need to maintain and a cloud storage where the data and the said information be stored and kept for future usage and utilities. Basically for this project we require some basic technologies, a server,a cloud portal and a strong functioning backend.

2.2 Investigation Phase

In this phase we would discuss about the basic structure and how this project came into being. We all need study materials for exams and this portal is all for the study material of all the years with syllabus as well as notes that is stored in backend and then it is retrieve from there. It is basically online portal for study materials . So we built up our own application, we wrote our own Propriety code and a developed a portal for the study materials for college in an unbiased manner. Then we did run few test cases to check if our algorithm was working as we wanted it to work. We used different test cases, different platforms and devices in which our portal will work on various devices to check whether our application was performing in the expected way or not. So this is how we investigated for building our project into its being as it is today and then worked on bug fixes and some issues that we worked upon in our development phase.

2.3 Designing Phase

During this phase we faced many challenges as we just had an abstract idea of our problem but designing it further and giving it a proper shape was quite a challenge. So we used basic coding language as C# over which our application code and basic algorithm would be written. Then for its functioning we needed other key components so we used postgresSQL for the backend and Heroku for cloud based functionalities. So basically in our project the application will run on a remote machine then all the Information would be retrieve from backend then it will send the data to the centralized cloud storage which would have all the data sorted and maintained in a nice order. So thus our application would run on any machine as an automatic windows service and would hence use very less OS and resources of the local machine while sending all the necessary information and data to the remote server and also providing the basic details to the user or the advanced details for the IT department. So in this phase we designed and planned out how we would structure and make our project function step by step diving the chores within our team.

2.4 Coding Phase

In this phase of the project we basically coded and implemented our ideas and written logics. We checked them and tweaked whatever changes and modification were required. Then we tried to write our code in least number of lines feasible so as to make our application faster. We checked our calculation and developed a very user friendly GUI. Also in this phase we created a backed and a server, did our data linkage so that there is smooth and easy flow of data and also it can be stored efficiently at one place. We checked our algorithms with different devices as all the components are working properly on different devices and coded accordingly. We then worked on the link through which the application starts automatic the as windows services. We also created an online portal for queries and for ease to access to our application. We in this phase assembled and worked on each bit of the project individually, coded it, wrote and implemented logics and changes and after that we proceeded to the next phase which was the most crucial phase that is the testing phase.

2.5 Testing and Development Phase

In this phase we did testing of our code and logics taking different test cases, on different devices. We basically rechecked in this phase if everything each and every component was in place and performing its required job or not. Here we also assembled our bits and made them work together. Also we checked if any further developments or bug fixes were needed. In this phase we basically did the overhauling of the whole application on web as its both the mobile as well as laptop application.

Chapter -3

PLATFORMS USED:

(3.1) .NET FRAMEWORK



.NET Framework is a software framework developed by Microsoft that runs primarily on Microsoft Windows. It includes a large class library named Framework Class Library (FCL) and provides language interoperability (each language can use code written in other languages) across several programming languages. Programs written for .NET Framework execute in a software environment (in contrast to a hardware environment) named Common Language Runtime (CLR), an application virtual machine that provides services such as security, memory management, and exception handling. (As such, computer code written using .NET Framework is called "managed code".) FCL and CLR together constitute .NET Framework.

FCL provides user interface, data access, database connectivity, cryptography, web application development, numeric algorithms, and network communications. Programmers produce software by combining their source code with .NET Framework and other libraries. The framework is intended to be used by most new applications created for the Windows platform. Microsoft also produces an integrated development environment largely for .NET software called Visual Studio.

.NET Framework began as proprietary software, although the firm worked to standardize the software stack almost immediately, even before its first release. Despite the standardization efforts, developers, mainly those in the free and open-source software communities, expressed their unease with the selected

terms and the prospects of any free and open-source implementation, especially regarding software patents. Since then, Microsoft has changed .NET development to more closely follow a contemporary model of a community-developed software project, including issuing an update to its patent promising to address the concerns.

Basic Features of .NET Framework

a) Interoperability

Computer systems commonly require interaction between newer and older applications, .NET Framework provides means to access functions implemented in newer and older programs that execute outside .NET environment. Access to Component Object Model (COM) components is provided in

System.Runtime.InteropServices and System.EnterpriseServices

b) Language Independence

.NET Framework introduces a Common Type System (CTS) that defines all possible data types and programming constructs supported by CLR and how they may or may not interact with each other conforming to CLI specification. Because of this feature, .NET Framework supports the exchange of types and object instances between libraries and applications written using any conforming .NET language.

c) Type Safety

CTS and the CLR used in .NET Framework also enforce type safety. This prevents ill-defined casts, wrong method invocations, and memory size issues when accessing an object. This also makes most CLI languages statically typed (with or without type inference). However, starting with .NET Framework 4.0, the Dynamic Language Runtime extended the CLR, allowing dynamically typed languages to be implemented atop the CLI.

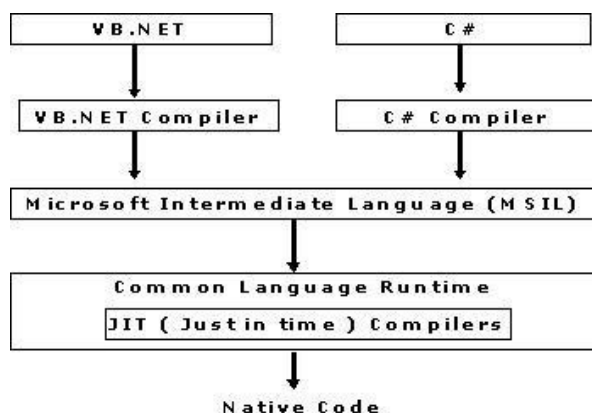
d) Memory Management

.NET Framework includes a garbage collector (GC) which runs periodically, on a separate thread from the application's thread, that enumerates all the unusable objects and reclaims the memory allocated to them. It is a non-deterministic, compacting, mark-and-sweep garbage collector. GC runs only when a set amount of memory has been used or there is enough pressure for memory on the system. Since it is not guaranteed when the conditions to reclaim memory are reached, GC runs are non-deterministic.

(3.1.1) COMPONENTS OF .NET

1. Common Language Runtime (CLR)

.Net Framework provides runtime environment called **Common Language Runtime (CLR)**. It provides an environment to run all the .Net Programs. The code which runs under the CLR is called as **Managed Code**. Programmers need not to worry on managing the memory if the programs are running under the CLR as it provides memory management and thread management. Programmatically, when our program needs memory, CLR allocates the memory for scope and de-allocates the memory if the scope is completed. Language Compilers (e.g. C#, VB.Net, J#) will convert the Code/Program to **Microsoft Intermediate Language (MSIL)** intern this will be converted to **Native Code** by CLR. See the below Fig.



There are currently over 15 language compilers being built by Microsoft and other companies also producing the code that will execute under CLR.

2. .Net Framework Class Library (FCL)

This is also called as Base Class Library and it is common for all types of applications i.e. the way you access the Library Classes and Methods in VB.NET will be the same in C#, and it is common for all other languages in .NET.

The following are different types of applications that can make use of .net class library.

1. Windows Application.
2. Console Application
3. Web Application.
4. XML Web Services.
5. Windows Services.

In short, developers just need to import the BCL in their language code and use its predefined methods and properties to implement common and complex functions like reading and writing to file, graphic rendering, database interaction, and XML document manipulation.

3. Common Type System (CTS)

It describes set of data types that can be used in different .Net languages in common. (i.e), CTS ensures that objects written in different .Net languages can interact with each other.

For Communicating between programs written in any .NET complaint language, the types have to be compatible on the basic level. The common type system supports two general categories of types:

Value types:

Value types directly contain their data, and instances of value types are either allocated on the stack or allocated inline in a structure. Value types can be built-in (implemented by the runtime), user-defined, or enumerations.

Reference types:

Reference types store a reference to the value's memory address, and are allocated on the heap. Reference types can be self-describing types, pointer types, or interface types. The type of a reference type can be determined from values of self-describing types. Self-describing types are further split into arrays and class types. The class types are user-defined classes, boxed value types, and delegates.

4. Common Language Specification (CLS)

It is a sub set of CTS and it specifies a set of rules that needs to be adhered or satisfied by all language compilers targeting CLR. It helps in cross language inheritance and cross language debugging.

Common language specification Rules:

It describes the minimal and complete set of features to produce code that can be hosted by CLR. It ensures that products of compilers will work properly in .NET environment.

Sample Rules:

1. Representation of text strings
2. Internal representation of enumerations
3. Definition of static members and this is a subset of the CTS which all .NET languages are expected to support.
4. Microsoft has defined CLS which are nothing but guidelines that language to follow so that it can communicate with other .NET languages in a seamless manner.

(3.2) MICROSOFT VISUAL CODE



An Integrated Development Environment (IDE) is software that facilitates application development. In the context of .NET-based applications, Visual Studio is the most commonly used IDE. Some of the key features included are:

- Single IDE for all .NET applications. Therefore no switching required to other IDEs for developing .NET applications
- Single .NET solution for an application which has been built on code written in multiple languages
- Code editor supporting Intellisense and code refactoring
- Compilation from within the environment based on defined configuration options

Visual Studio Code is a source code editor. It supports a number of programming languages and a set of features that may or may not be available for a given language, as shown in the following table. Many of Visual Studio Code features are not exposed through menus or the user interface.

Rather, they are accessed via the command palette or via a .json file (e.g., user preferences). The command palette is a command-line interface. However, it disappears if the user clicks anywhere outside it or presses a key combination on the keyboard to interact with something outside it. This is true for time-consuming commands as well. When this happens, the command in progress is cancelled.

(3.2.1) INTEGRATED DEVELOPMENT ENVIROMENT

An **integrated development environment (IDE)** is a software application that provides comprehensive facilities to computer programmers for software development. An IDE normally consists of a source code editor, build automation tools and a debugger. Most modern IDEs have intelligent code completion. Some IDEs, such as NetBeans and Eclipse, contain a compiler, interpreter, or both; others, such as SharpDevelop and Lazarus, do not. The boundary between an integrated development environment and other parts of the broader *software development environment* is not well-defined. Sometimes a version control system, or various tools to simplify the construction of a Graphical User Interface (GUI), are integrated. Many modern IDEs also have a class browser, an object browser, and a class hierarchy diagram, for use in object-oriented software development.

(3.3) GIT HUB



GitHub is a web-based Git or version control repository and Internet hosting service. It is mostly used for code. It offers all of the distributed version control and source code management (SCM) functionality of Git as well as adding its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, and wikis for every project.

GitHub offers both plans for private and free repositories on the same account which are commonly used to host open-source software projects. As of April 2017, GitHub reports having almost 20 million users and 57 million repositories, making it the largest host of source code in the world.

(3.4) WEB BROWSERS



Web browsers are used by people to find and look at websites on the Internet. Many different web browsers are available for free. All web browsers can go to websites but each browser has good things and bad things about it. For example, some browsers focus on data security. Other browsers are made so that web pages appear on screen faster..

(3.5) HEROKU



Heroku is a cloud platform as a service (PaaS) supporting several programming languages that is used as a web application deployment model. Heroku, one of the first cloud platforms, has been in development since June 2007, when it supported only the Ruby programming language, but now supports Java, Node.js, Scala, Clojure, Python, PHP, and Go. For this reason, Heroku is said to be a polyglot platform as it lets the developer build, run and scale applications in a similar manner across all the languages.

Chapter – 4

Designing and coding:

Backend django:

Django
settings for
keyscore_s1
project.

Generated by 'django-admin startproject' using Django 1.9.1.

For more information on this file, see

<https://docs.djangoproject.com/en/1.9/topics/settings/>

For the full list of settings and their values, see

<https://docs.djangoproject.com/en/1.9/ref/settings/>

"""

```
import os
import posixpath
```

```
# Build paths inside the project like this: os.path.join(BASE_DIR, ...)
```

```
BASE_DIR = os.path.dirname(os.path.dirname(os.path.abspath(__file__)))
```

```
# Quick-start development settings - unsuitable for production
```

```
# See https://docs.djangoproject.com/en/1.9/howto/deployment/checklist/
```

```
# SECURITY WARNING: keep the secret key used in production secret!
```

```
SECRET_KEY = 'b1cc591f-3062-4980-b98a-6ce3a2c2e57f'
```

```
# SECURITY WARNING: don't run with debug turned on in production!
```

```
DEBUG = True
```

```
#working
```

```
ALLOWED_HOSTS = ['*']
```

Application definition

```
INSTALLED_APPS = [  
    # Add your apps here to enable them  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
    'webapp',  
]
```

```
MIDDLEWARE_CLASSES = [  
    'django.middleware.security.SecurityMiddleware',  
    'django.contrib.sessions.middleware.SessionMiddleware',  
    'django.middleware.common.CommonMiddleware',  
    'django.middleware.csrf.CsrfViewMiddleware',  
    'django.contrib.auth.middleware.AuthenticationMiddleware',  
    'django.contrib.auth.middleware.SessionAuthenticationMiddleware',  
    'django.contrib.messages.middleware.MessageMiddleware',  
    'django.middleware.clickjacking.XFrameOptionsMiddleware',  
]
```

```
ROOT_URLCONF = 'keyscore_s1.urls'
```

```
TEMPLATES = [  
    {  
        'BACKEND': 'django.template.backends.django.DjangoTemplates',  
        'DIRS': [],  
        'APP_DIRS': True,  
        'OPTIONS': {  
            'context_processors': [  
                'django.template.context_processors.debug',  
                'django.template.context_processors.request',  
                'django.contrib.auth.context_processors.auth',  
                'django.contrib.messages.context_processors.messages',  
            ],  
        },  
    },  
]
```

```
WSGI_APPLICATION = 'keyscore_s1.wsgi.application'
```

```
# Database
```

```
# https://docs.djangoproject.com/en/1.9/ref/settings/#databases
```

```
DATABASES = {  
    'default': {  
        'ENGINE': 'django.db.backends.sqlite3',  
        'NAME': os.path.join(BASE_DIR, 'db.sqlite3'),  
    }  
}
```

```
import dj_database_url  
db_from_env = dj_database_url.config()  
DATABASES['default'].update(db_from_env)
```

```
# Password validation
```

```
# https://docs.djangoproject.com/en/1.9/ref/settings/#auth-password-validators
```

```
AUTH_PASSWORD_VALIDATORS = [  
    {  
        'NAME':  
        'django.contrib.auth.password_validation.UserAttributeSimilarityValidator',  
    },  
    {  
        'NAME':  
        'django.contrib.auth.password_validation.MinimumLengthValidator',  
    },  
    {  
        'NAME':  
        'django.contrib.auth.password_validation.CommonPasswordValidator',  
    },  
    {  
        'NAME':  
        'django.contrib.auth.password_validation.NumericPasswordValidator',  
    },  
]
```

```
    },  
]
```

```
# Internationalization  
# https://docs.djangoproject.com/en/1.9/topics/i18n/
```

```
LANGUAGE_CODE = 'en-us'
```

```
TIME_ZONE = 'UTC'
```

```
USE_I18N = True
```

```
USE_L10N = True
```

```
USE_TZ = True
```

```
# Static files (CSS, JavaScript, Images)  
# https://docs.djangoproject.com/en/1.9/howto/static-files/
```

```
STATIC_URL = '/static/'
```

```
STATICFILES_STORAGE = 'whitenoise.django.GzipManifestStaticFilesStorage'
```

```
STATIC_ROOT = posixpath.join(*(BASE_DIR.split(os.path.sep) + ['static']))
```

```
from  
django.shortcuts  
import  
render
```

```
from django.http.response import HttpResponseRedirect
```

Create your views here.

```
def home(request):  
    return render(request, 'webapp/home.html', {})
```

```
def pixa(request):  
    return render(request, 'webapp/pixa.html', {})
```

```
def live(request):  
    return render(request, 'webapp/live.html', {})
```

```
def studyportal(request):  
    return  
    HttpResponseRedirect("https://harshityadav95.github.io/syllabus.github.io/engineering/btech/cs/home.html")
```

```
def campus(request):  
    return render(request, 'webapp/campus.html', {})
```

```
def about(request):  
    return render(request, 'webapp/about.html', {})
```

```
def filebox(request):  
    return render(request, 'webapp/filebox.html', {})
```

```
def mstg(request):  
    return render(request, 'webapp/mstg.html', {})
```

```
def dum(request):  
    return
```

```
HttpResponseRedirect("https://harshityadav95.github.io/syllabus.github.io/engineering/btech/cs/home.html")
```

```
/* CHANGELISTS */
```

```
#changelist {  
    position: relative;  
    width: 100%;  
}
```

```
#changelist table {  
    width: 100%;  
}
```

```
.change-list .hiddenfields { display:none; }
```

```
.change-list .filtered table {  
    border-right: none;  
}
```

```
.change-list .filtered {  
    min-height: 400px;  
}
```

```
.change-list .filtered .results, .change-list .filtered .paginator,  
.filtered #toolbar, .filtered div.xfull {  
    margin-right: 280px;  
    width: auto;  
}
```

```
.change-list .filtered table tbody {  
    padding-right: 1em;  
}
```

```
#changelist-form .results {  
    overflow-x: auto;  
}
```

```
#changelist .toplinks {  
    border-bottom: 1px solid #ddd;  
}
```

```
#changelist .paginator {  
    color: #666;  
    border-bottom: 1px solid #eee;
```

```
background: #fff;
overflow: hidden;
}

/* CHANGELIST TABLES */

#changelist table theadth {
padding: 0;
white-space: nowrap;
vertical-align: middle;
}

#changelist table theadth.action-checkbox-column {
width: 1.5em;
text-align: center;
}

#changelist table tbodytd.action-checkbox {
text-align: center;
}

#changelist table tfoot {
color: #666;
}

/* TOOLBAR */

#changelist #toolbar {
padding: 8px 10px;
margin-bottom: 15px;
border-top: 1px solid #eee;
border-bottom: 1px solid #eee;
background: #f8f8f8;
color: #666;
}

#changelist #toolbar form input {
border-radius: 4px;
font-size: 14px;
padding: 5px;
color: #333;
}

#changelist #toolbar form #searchbar {
height: 19px;
border: 1px solid #ccc;
padding: 2px 5px;
```



```
margin: 0;
vertical-align: top;
font-size: 13px;
}

#changelist #toolbar form #searchbar:focus {
border-color: #999;
}

#changelist #toolbar form input[type="submit"] {
border: 1px solid #ccc;
padding: 2px 10px;
margin: 0;
vertical-align: middle;
background: #fff;
box-shadow: 0 -15px 20px -10px rgba(0, 0, 0, 0.15) inset;
cursor: pointer;
color: #333;
}

#changelist #toolbar form input[type="submit"]:focus,
#changelist #toolbar form input[type="submit"]:hover {
border-color: #999;
}

#changelist #changelist-search img {
vertical-align: middle;
margin-right: 4px;
}

/* FILTER COLUMN */

#changelist-filter {
position: absolute;
top: 0;
right: 0;
z-index: 1000;
width: 240px;
background: #f8f8f8;
border-left: none;
margin: 0;
}

#changelist-filter h2 {
font-size: 14px;
text-transform: uppercase;
letter-spacing: 0.5px;
```

```
padding: 5px 15px;
margin-bottom: 12px;
border-bottom: none;
}

#changelist-filter h3 {
    font-weight: 400;
    font-size: 14px;
    padding: 0 15px;
    margin-bottom: 10px;
}

#changelist-filter ul {
    margin: 5px 0;
    padding: 0 15px 15px;
    border-bottom: 1px solid #eaeaea;
}

#changelist-filter ul:last-child {
    border-bottom: none;
    padding-bottom: none;
}

#changelist-filter li {
    list-style-type: none;
    margin-left: 0;
    padding-left: 0;
}

#changelist-filter a {
    display: block;
    color: #999;
}

#changelist-filter li.selected {
    border-left: 5px solid #eaeaea;
    padding-left: 10px;
    margin-left: -15px;
}

#changelist-filter li.selected a {
    color: #5b80b2;
}

#changelist-filter a:focus, #changelist-filter a:hover,
#changelist-filter li.selected a:focus,
#changelist-filter li.selected a:hover {
```

```
    color: #036;
}

/* DATE DRILLDOWN */

.change-list ul.toplinks {
    display: block;
    float: left;
    padding: 0;
    margin: 0;
    width: 100%;
}

.change-list ul.toplinks li {
    padding: 3px 6px;
    font-weight: bold;
    list-style-type: none;
    display: inline-block;
}

.change-list ul.toplinks .date-back a {
    color: #999;
}

.change-list ul.toplinks .date-back a:focus,
.change-list ul.toplinks .date-back a:hover {
    color: #036;
}

/* PAGINATOR */

.paginator {
    font-size: 13px;
    padding-top: 10px;
    padding-bottom: 10px;
    line-height: 22px;
    margin: 0;
    border-top: 1px solid #ddd;
}

.paginator a:link, .paginator a:visited {
    padding: 2px 6px;
    background: #79aec8;
    text-decoration: none;
    color: #fff;
}
```

```
.paginator.showall {
    padding: 0;
    border: none;
    background: none;
    color: #5b80b2;
}

.paginator.showall:focus, .paginator.showall:hover {
    background: none;
    color: #036;
}

.paginator .end {
    margin-right: 6px;
}

.paginator .this-page {
    padding: 2px 6px;
    font-weight: bold;
    font-size: 13px;
    vertical-align: top;
}

.paginator a:focus, .paginator a:hover {
    color: white;
    background: #036;
}

/* ACTIONS */

.filtered .actions {
    margin-right: 280px;
    border-right: none;
}

#changelist table input {
    margin: 0;
    vertical-align: baseline;
}

#changelist table tbodytr.selected {
    background-color: #FFFCC;
}

#changelist .actions {
    padding: 10px;
    background: #fff;
```

```
border-top: none;
border-bottom: none;
line-height: 24px;
color: #999;
}

#changelist .actions.selected {
    background: #fffccf;
    border-top: 1px solid #fffee8;
    border-bottom: 1px solid #edecd6;
}

#changelist .actions span.all,
#changelist .actions span.action-counter,
#changelist .actions span.clear,
#changelist .actions span.question {
    font-size: 13px;
    margin: 0 0.5em;
    display: none;
}

#changelist .actions:last-child {
    border-bottom: none;
}

#changelist .actions select {
    vertical-align: top;
    height: 24px;
    background: none;
    color: #000;
    border: 1px solid #ccc;
    border-radius: 4px;
    font-size: 14px;
    padding: 0 0 0 4px;
    margin: 0;
    margin-left: 10px;
}

#changelist .actions select:focus {
    border-color: #999;
}

#changelist .actions label {
    display: inline-block;
    vertical-align: middle;
    font-size: 13px;
}
```

```
#changelist .actions .button {
    font-size: 13px;
    border: 1px solid #ccc;
    border-radius: 4px;
    background: #fff;
    box-shadow: 0 -15px 20px -10px rgba(0, 0, 0, 0.15) inset;
    cursor: pointer;
    height: 24px;
    line-height: 1;
    padding: 4px 8px;
    margin: 0;
    color: #333;
}

#changelist .actions .button:focus, #changelist .actions .button:hover {
    border-color: #999;
}
```

Manage.py

```
#!/usr/bin/env python
import os
import sys

if __name__ == "__main__":
    os.environ.setdefault("DJANGO_SETTINGS_MODULE", "service.settings")
    try:
        from django.core.management import execute_from_command_line
    except ImportError:
        # The above import may fail for some other reason. Ensure that the
        # issue is really that Django is missing to avoid masking other
        # exceptions on Python 2.
        try:
            import django
        except ImportError:
            raise ImportError(
                "Couldn't import Django. Are you sure it's installed and "
                "available on your PYTHONPATH environment variable? Did you "
                "forget to activate a virtual environment?"
            )
        raise
    execute_from_command_line(sys.argv)
```

Backend GUI:

```
<!DOCTYPE html>
```

```
<html class="html" lang="en-US">
```

```
<head>
```

```
<script type="text/javascript">
```

```
    if(typeof Muse == "undefined") window.Muse = {}; window.Muse.assets = {"required":["jquery-1.8.3.min.js", "museutils.js", "jquery.watch.js", "index.css"], "outOfDate":[]};
```

```
</script>
```

```
<meta http-equiv="Content-type" content="text/html; charset=UTF-8"/>
```

```
<meta name="generator" content="2015.0.0.309"/>
```

```
<title>Home</title>
```

```
<!-- CSS -->
```

```
<link rel="stylesheet" type="text/css" href="css/site_global.css?4052507572"/>
```

```
<link rel="stylesheet" type="text/css" href="css/index.css?3998301328" id="pagesheet"/>
```

```
<!-- Other scripts -->
```

```
<script type="text/javascript">
```

```
document.documentElement.className += ' js';
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<!--HTML Widget code-->
```

```
<div id="fb-root"></div>
```

```
<script>
```

```
(function(d, s, id) {
```

```
var js, fjs = d.getElementsByTagName(s)[0];
```

```
if (d.getElementById(id)) return;
```

```
js = d.createElement(s); js.id = id;
```

```
js.src = "//connect.facebook.net/en_US/all.js#xfbml=1";
```

```
fjs.parentNode.insertBefore(js, fjs);
```

```
})(document, 'script', 'facebook-jssdk');
```

```
</script>
```

```
<div class="clearfix" id="page"><!-- column -->
```

```
<div class="position_content" id="page_position_content">
```

```
<div class="browser_widthcolelem" id="u76-bw">
```

```
<div id="u76"><!-- group -->
```

```
<div class="clearfix" id="u76_align_to_page">
```

```
<a class="nonblocknontext Button ButtonSelected rounded-corners clearfixgrpelem" id="buttonu181"
href="index.html"><!-- container box --><!-- rasterized frame --></a>
```

```
<a class="nonblocknontext Button rounded-corners clearfixgrpelem" id="buttonu206"
href="links.html"><!-- container box --><!-- state-based BG images --></a>
```

```
<!-- rasterized frame -->
```

```
<a class="nonblocknontext Button rounded-corners clearfixgrpelem" id="buttonu183" href="about-
us.html"><!-- container box --><!-- state-based BG images --></a>
```

```
<a class="nonblocknontext Button rounded-corners clearfixgrpelem" id="buttonu186" href="contact-
us.html"><!-- container box --><!-- state-based BG images --></a>
```


</div>

</div>

</div>

<div class="clearfixcolelem" id="pu188"><!-- group -->

<div class="clip_framegrpelem" id="u188"><!-- image -->

</div>

<div class="clip_framegrpelem" id="u78"><!-- image -->

</div>

</div>

<div class="clearfixcolelem" id="pu361"><!-- group -->

<div class="pointer_cursorclearfixgrpelem" id="u361"><!-- group -->

<!-- rasterized frame -->

</div>

<div class="clip_framegrpelem" id="u278"><!-- image -->

</div>

</div>

<div class="browser_widthcolelem" id="u210-bw">

<div id="u210"><!-- group -->

<div class="clearfix" id="u210_align_to_page">

<!-- rasterized frame -->

```
<div class="grpelem" id="u365"><!-- custom html -->
```

```
<div class="fb-like" data-href="http://www.facebook.com/PostOffice.IN/" data-send="false" data-width="291" data-show-faces="false" data-colorscheme="light" data-layout="standard" data-action="like"></div>
```

```
</div>
```

```
<div class="grpelem" id="u346"><!-- custom html -->
```

```
<a href="https://twitter.com/https://twitter.com/indiapostoffice?lang=en" class="twitter-follow-button" data-lang="en" data-show-screen-name="false" data-size="medium"></a>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
<div class="verticalspacer"></div>
```

```
<!-- rasterized frame -->
```

```
</div>
```

```
</div>
```

```
<div class="preload_images">
```

```

```

```

```

```

```

```
</div>
```

```
<!-- JS includes -->
```

```
<script type="text/javascript">
```

```
if (document.location.protocol != 'https:') document.write('\x3Cscript
src="http://musecdn.businesscatalyst.com/scripts/4.0/jquery-1.8.3.min.js"
type="text/javascript">\x3C/script>');
```

```
</script>
```

```
<script type="text/javascript">
```

```
window.jQuery || document.write('\x3Cscript src="scripts/jquery-1.8.3.min.js"
type="text/javascript">\x3C/script>');
```

```
</script>
```

```
<script src="scripts/museutils.js?183364071" type="text/javascript"></script>
```

```
<script src="scripts/jquery.watch.js?71412426" type="text/javascript"></script>
```

```
<!-- Other scripts -->
```

```
<script type="text/javascript">
```

```
$(document).ready(function() { try {

(function(){var a={},b=function(a){if(a.match(/^rgb/))return
a=a.replace(/\s+/g,"").match(/([\d\,]+)/gi)[0].split(",");(parseInt(a[0])<<16)+(parseInt(a[1])<<8)+parseInt(
a[2]);if(a.match(/^#\d+/))return parseInt(a.substr(1),16);return
0};(function(){$("link[type="text/css"]').each(function(){var
b=$(this).attr("href")||"").match(/\s?css\?([\w\
]+\.css)\?(\d+)/);b&&b[1]&&b[2]&&(a[b[1]]=b[2]))});(function(){$("body").append('<div
class="version" style="display:none; width:1px; height:1px;"></div>');

for(var c=$(".version"),d=0;d<Muse.assets.required.length;){var
f=Muse.assets.required[d],g=f.match(/([\w\
\.\+)]\.(w+)\$/),k=g&&g[1]?g[1]:null,g=g&&g[2]?g[2]:null;switch(g.toLowerCase()){case
"css":k=k.replace(/\W/gi,"_").replace(/^[^a-z]/gi,"_1");c.addClass(k);var
g=b(c.css("color")),h=b(c.css("background-
color"));g!=0||h!=0?(Muse.assets.required.splice(d,1),"undefined"!=typeof
a[f]&&(g!=a[f]>>>24||h!=(a[f]&16777215))&&Muse.assets.outOfDate.push(f)):d++;c.removeClass(k);bre
ak;case "js":k=k.match(/^jquery-[\d\.\+]/gi)&&

typeof $!="undefined"?Muse.assets.required.splice(d,1):d++;break;default:throw Error("Unsupported
file type: "+g);}}c.remove();if(Muse.assets.outOfDate.length||Muse.assets.required.length)c="Some
files on the server may be missing or incorrect. Clear browser cache and try again. If the problem
persists please contact website
author.",(d=location&&location.search&&location.search.match&&location.search.match(/muse_debug
/gi))&&Muse.assets.outOfDate.length&&(c+="\nOut of date:
"+Muse.assets.outOfDate.join(", ")),d&&Muse.assets.required.length&&(c+="\nMissing:
"+Muse.assets.required.join(", ")),alert(c))})();
```

```
/* body */

Muse.Utls.transformMarkupToFixBrowserProblemsPreInit();/* body */

Muse.Utls.prepHyperlinks(true);/* body */

Muse.Utls.resizeHeight()/* resize height */

Muse.Utls.fullPage('#page');/* 100% height page */

Muse.Utls.showWidgetsWhenReady();/* body */

Muse.Utls.transformMarkupToFixBrowserProblems();/* body */

} catch(e) { if (e && 'function' == typeof e.notify) e.notify(); else Muse.Assert.fail('Error calling selector
function:' + e); });

</script>

<!--HTML Widget code-->

<script>!function(d,s,id){var
js,fjs=d.getElementsByTagName(s)[0];if(!d.getElementById(id)){js=d.createElement(s);js.id=id;js.src="htt
ps://platform.twitter.com/widgets.js";fjs.parentNode.insertBefore(js,fjs);}}(document,"script","twitter-
wjs");</script>

</body>

</html>
```

Conclusion

With the fulfilment of this project we intend to build a market level product which is easy and ready to use. Also our efforts were to learn new and multiple technologies for enhancing our skillset and also for a more holistic approach in our application. Any further suggestions or changes will be incorporated as per the need and time during the ever going maintenance purposes. We hope and aspire that this application would simply help the students in their college life. Students find everything related to their college at one stop and doesn't have to face any difficulties.

References

- ❖ https://en.wikipedia.org/wiki/Google_Chrome
- ❖ <https://www.heroku.com/>
- ❖ <https://github.com/mahajan007/comingsoon.github.io>
- ❖ <https://en.wikipedia.org/wiki/Heroku>
- ❖ https://www.youtube.com/watch?v=4q1tD39Mk_A
- ❖ <https://devcenter.heroku.com/articles/getting-started-with-python#introduction>
- ❖ <https://devcenter.heroku.com/articles/deploying-python#prerequisites>