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Plagiarism Online Checker

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Plagiarism Online Checker

Introduction

Plagiarism Online Checker

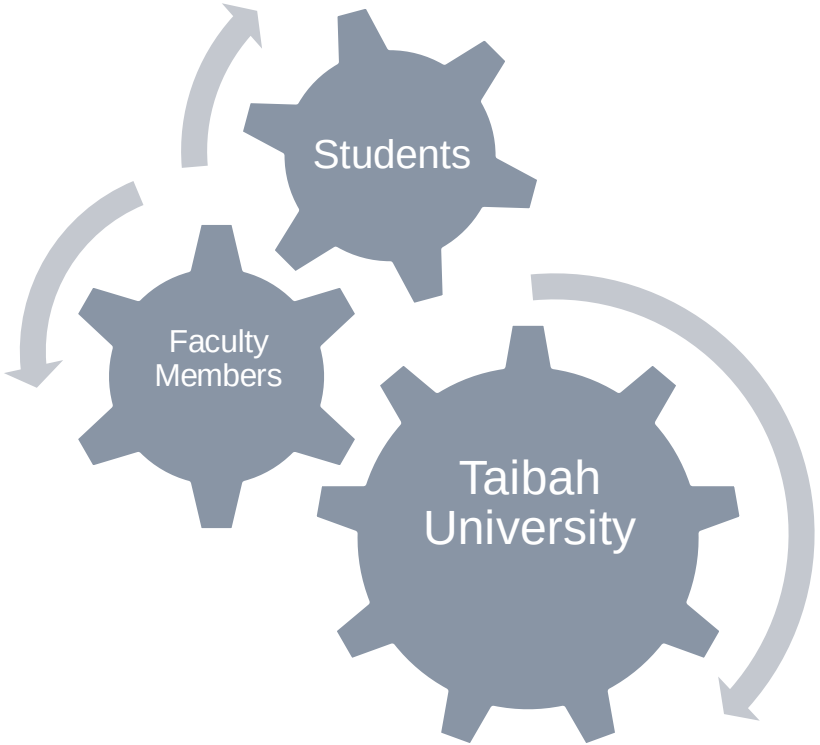
Internet has changed the education style
students may steal other people work or idea as their own.
plagiarism can be defined as stealing other people's work and submitting it under a person's own work.
In fact, plagiarism affects the quality of education in any institute or university.

Online plagiarism checker system is used to discover the plagiarism data.
A data analysis algorithm called "**Boyer Moore**" was used to analyze the text and find out the quote percentage

Plagiarism Online Checker

Students and faculty members in any educational institute need a tool for plagiarism check in the documents.

All available tools are not free which puts a burden on the students to check the plagiarism Our tool is dedicated for graduation project checking. It will be very beneficial for students and faculty members if such a tool is developed for checking their documents



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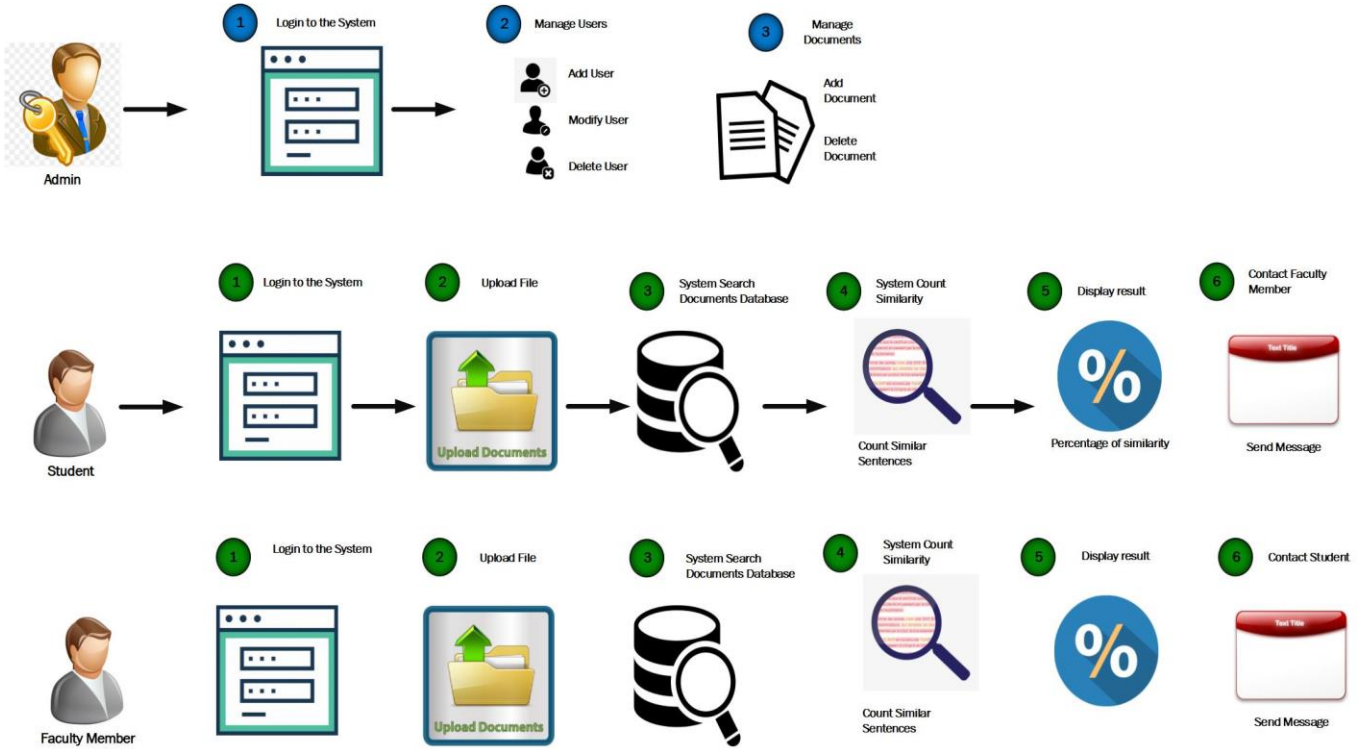
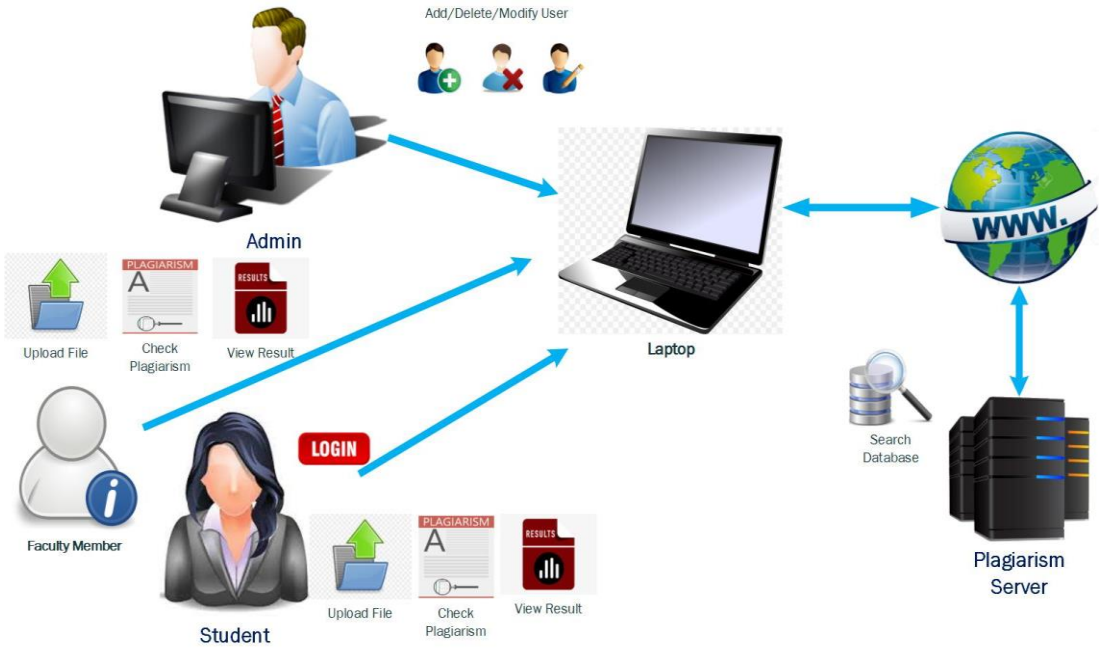
Plagiarism Online Checker

SYSTEM DESIGN

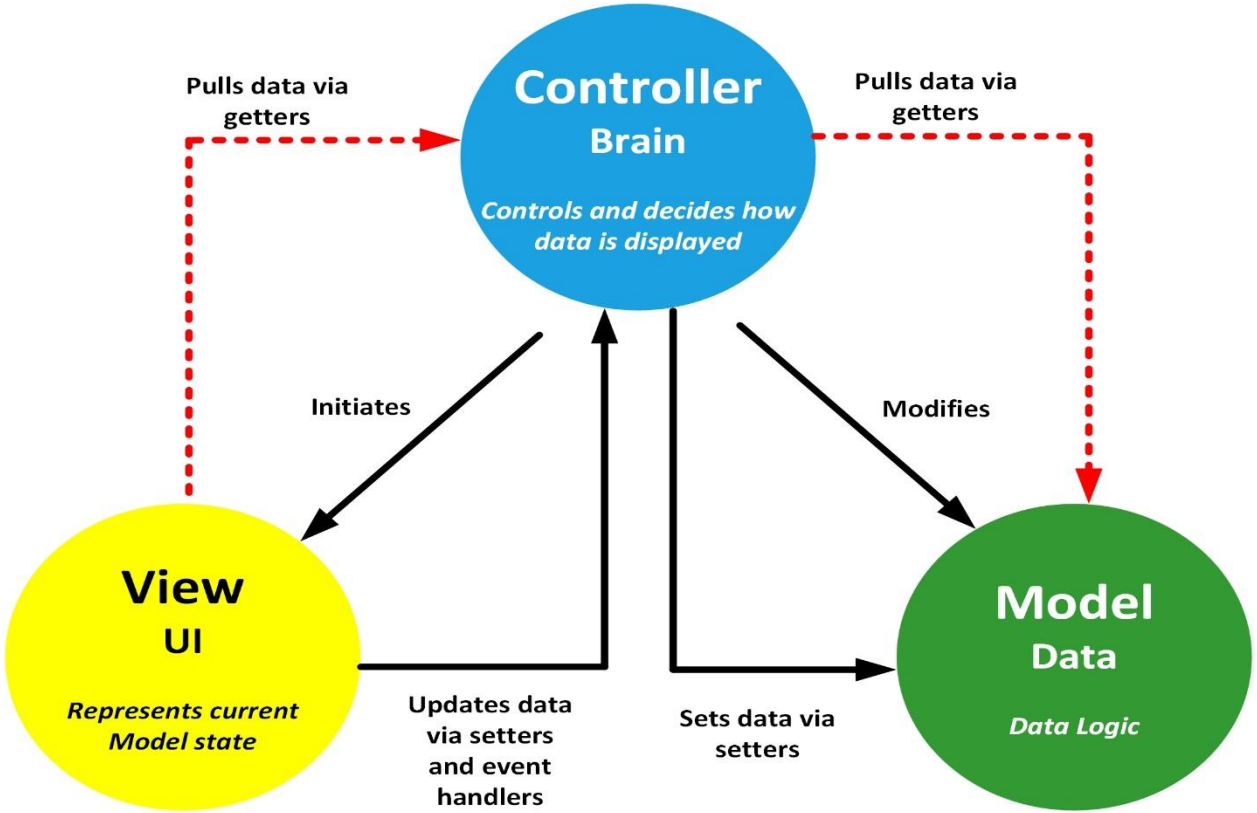
Components


Admin
1
Login to the System
2
Manage Users
Add User
Modify User
Delete User
3
Manage Documents
Add Document
Delete Document
Student
1
Login to the System
2
Upload File
Upload Documents
3
System Search Documents Database
4
System Count Similarity
Count Similar Sentences
5
Display result
Percentage of similarity
6
Contact Faculty Member
Send Message
Faculty Member
1
Login to the System
2
Upload File
Upload Documents
3
System Search Documents Database
4
System Count Similarity
Count Similar Sentences
5
Display result
6
Contact Student
Send Message

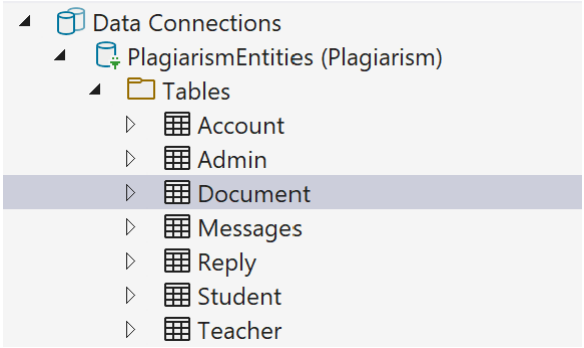
Conceptual


Add/Delete/Modify User
Admin
Upload File
Check Plagiarism
View Result
Laptop
WWW.
Search Database
Plagiarism Server
LOGIN
Faculty Member
Student
Upload File
Check Plagiarism
View Result

Architecture



DATABASE



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🔑	Id	int	☐		
	Title	nvarchar(MAX)	☑		
	Abstract	nvarchar(MAX)	☑		
	UploaderId	int	☑		
	FilePath	nvarchar(MAX)	☑		
	UploadDate	datetime	☑		
	Status	bit	☐		
	StatusDetails	nvarchar(MAX)	☑		
			☐		

interface

- guidelines we followed

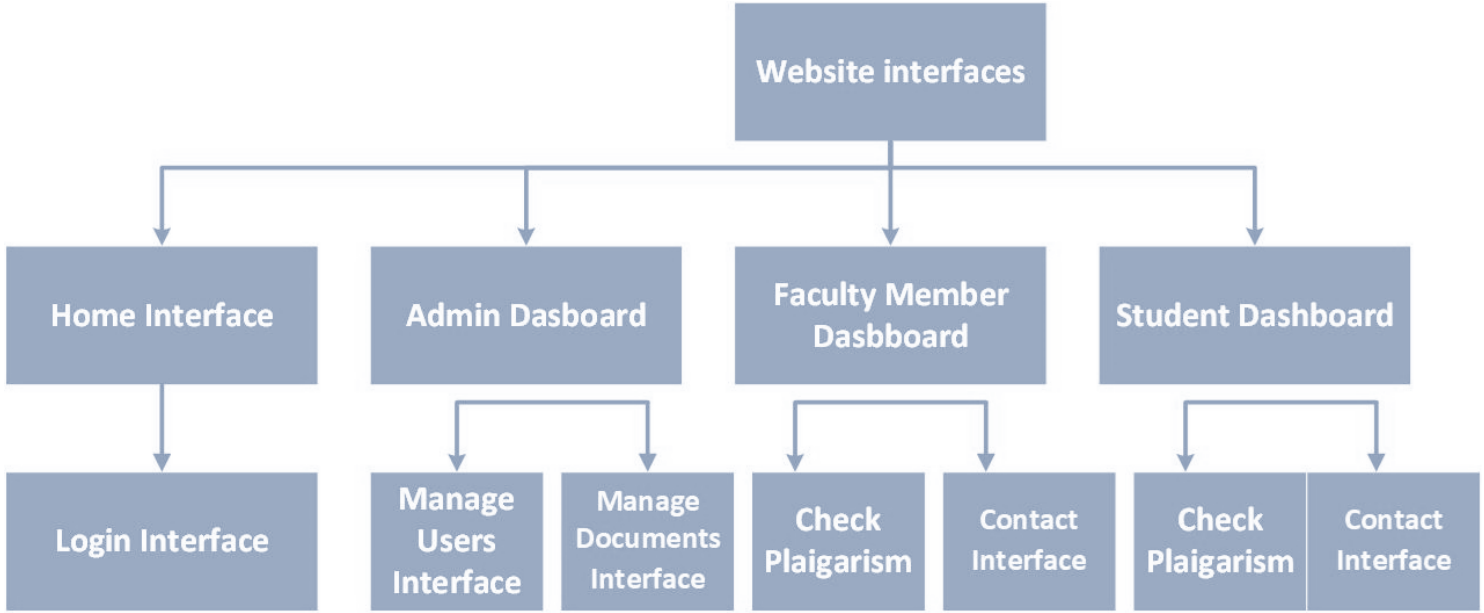
Make buttons and other common elements perform predictably

Maintain high discoverability

Keep interfaces simple

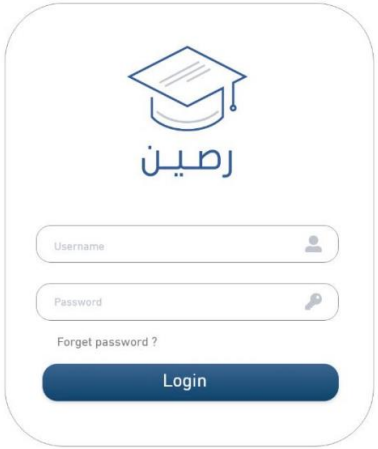
Respect the user's eye and attention regarding layout

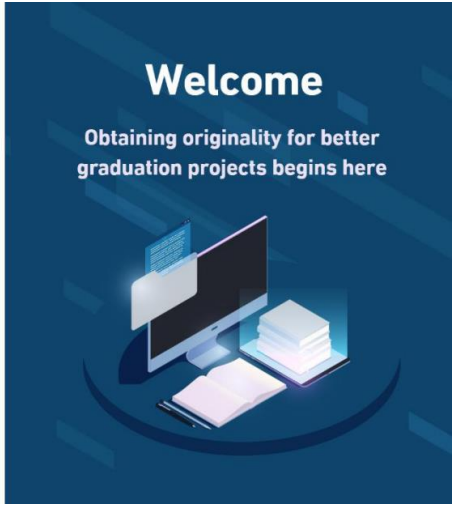
Interface


Website interfaces
Home Interface
Admin Dasboard
Faculty Member Dasbboard
Student Dashboard
Login Interface
Manage Users Interface
Manage Documents Interface
Check Plaigarism
Contact Interface
Check Plaigarism
Contact Interface

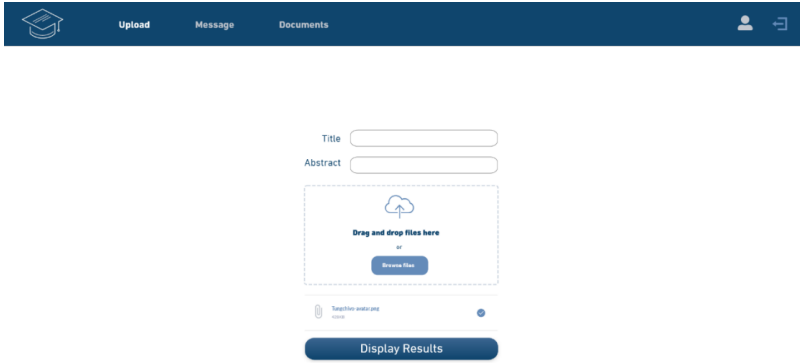
SNAPSHOT

Initial interfaces





Login Interfaces



Main Interface

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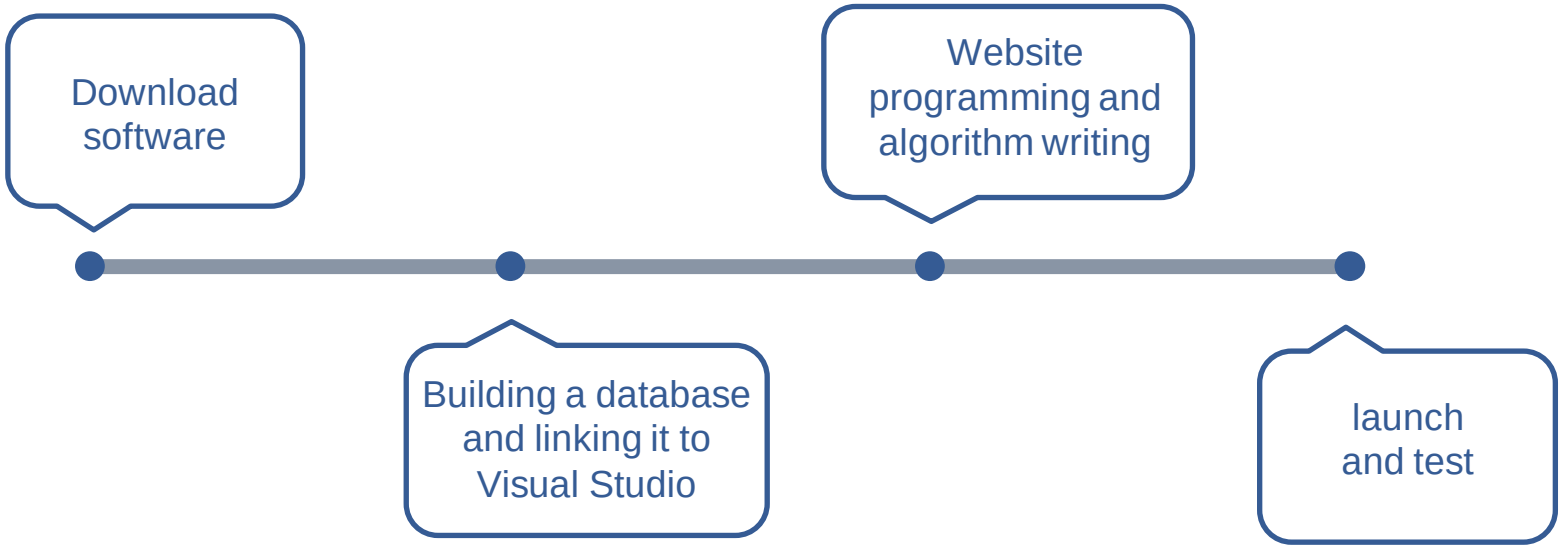
IMPLEMENTATION

IMPLEMENTATION Phase



we developed our project using ASP.NET with MVC

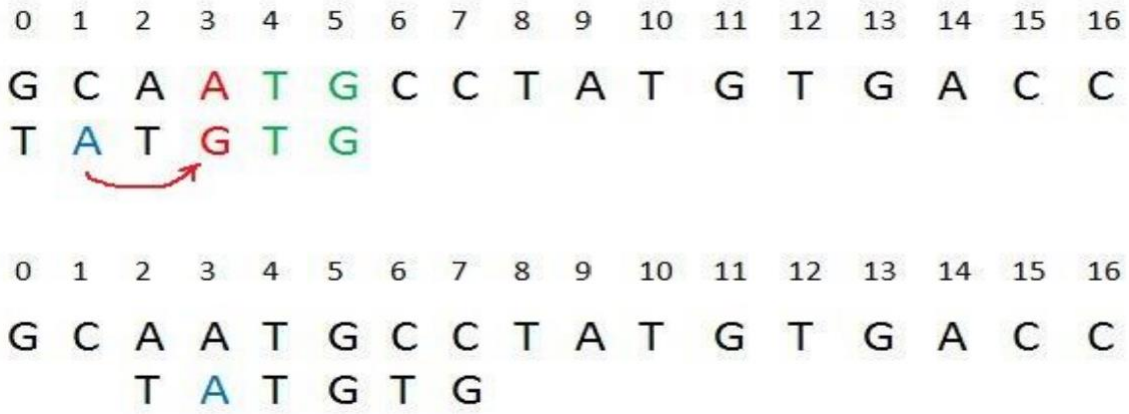
Algorithm used to detect plagiarism

Boyer Moore algorithm preprocesses the pattern. Boyer Moore is a mixture of the following models.

1) Bad Character Heuristic
2) Good Suffix Heuristic

the above mentioned models are used to search a pattern in a text.
Native algorithms shifts the pattern over the text one by one. KMP algorithm shifts the pattern by one more after preprocessing. BM also process to shift patterns. It processes the pattern and creates different arrays for each of the two heuristics. Every step, BM shifts the pattern by max of the slides proposed by the above two models. Boyer Moore algorithm starts matching from the last character of the pattern in the process stage unlike most algorithms.

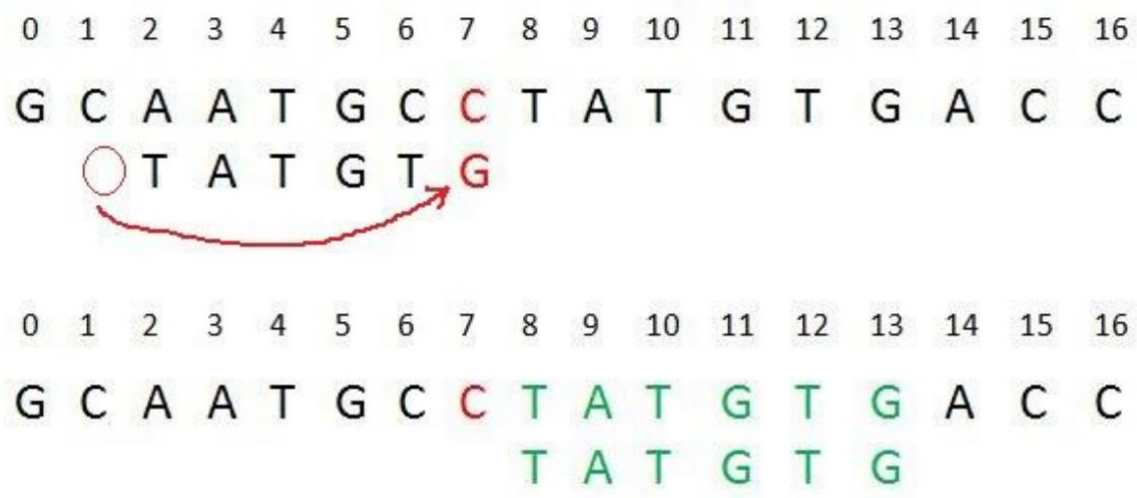
Algorithm used to detect plagiarism



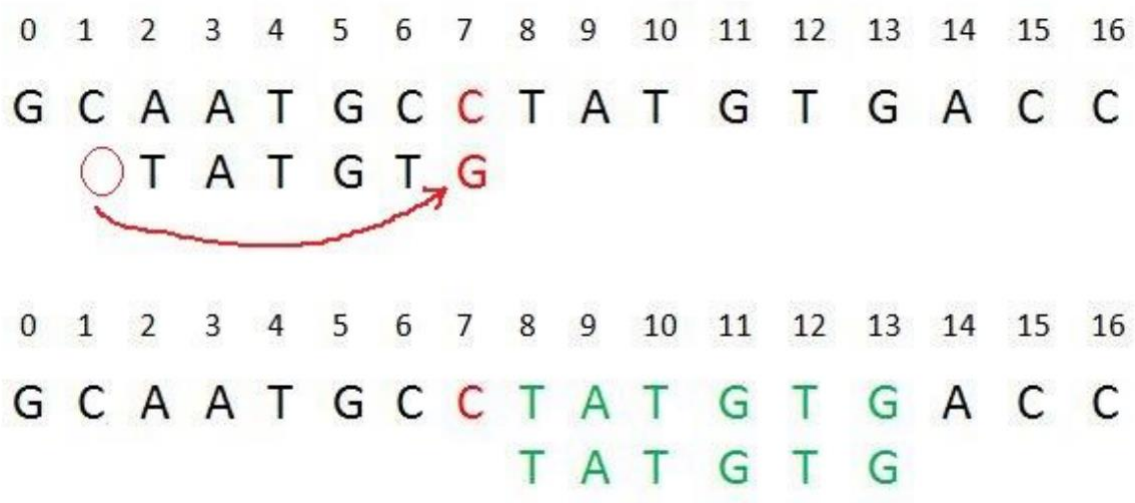
In the above example, there was mismatch at position 3. Mismatched character is “A”.
A for last occurrence of “A” in pattern is performed.
“A” is found at position 1 in pattern and this is the last occurrence of it.
A 2 times shift is performed so that “A” in pattern get aligned with “A” in text.

Algorithm used to detect plagiarism

Pattern move past the mismatch character
A lookup of the position of last occurrence of mismatching character in pattern and if character does not exist we will shift pattern past the mismatching character.



Algorithm used to detect plagiarism



Explanation: position 7 has a mismatch. “C” does not exist in pattern before position 7 therefore the pattern is shifted past the position 7 then finally a match will be done as shown in the figure highlighted in green. This is performed because “C” does not exist in the pattern then at every shift before position 7 a mismatch will be occurring.

Boyer Moore Code

```
public static ArrayList computeAlgo(String documentCorpus, String testFile) {
    long start = Environment.TickCount;
    List<String> pattern_list = null;
    string[] files = Directory.GetFiles(documentCorpus);
    for (int fi = 0; fi < files.Length; fi++) {
        List<List<String>> pattern = getList(testFile);
        List<List<String>> corpus = getList(files[fi]);
        List<String> corpus_list = corpus[1];
        pattern_list = pattern[1];
        for (int i = 0; i < pattern_list.Count; i++) {
            String p = pattern_list[i];
            p= p.Replace(" ","");
            char[] pat = p.ToCharArray();
            patternCounter = i;
            for (int j = 0; j < corpus_list.Count; j++) {
                String t = corpus_list[j];
                t= t.Replace(" ","");
                char []txt = t.ToCharArray();
                testCounter = j;
                search(txt, pat, fi, corpus[0]);
            }
        }
    }
    double count_total_sentence = pattern_list.Count;
    double percentage = match_count / count_total_sentence;
    Console.WriteLine(percentage);
    match = percentage * 100;
    long end = Environment.TickCount;
    runnigTime = end - start;
    boyer_more_list.Add("Total percentage match :" + (percentage) * 100);
    boyer_more_list.Add("Total time to run the algorithm" + runnigTime+ " miliseconds");
    return boyer_more_list;
```

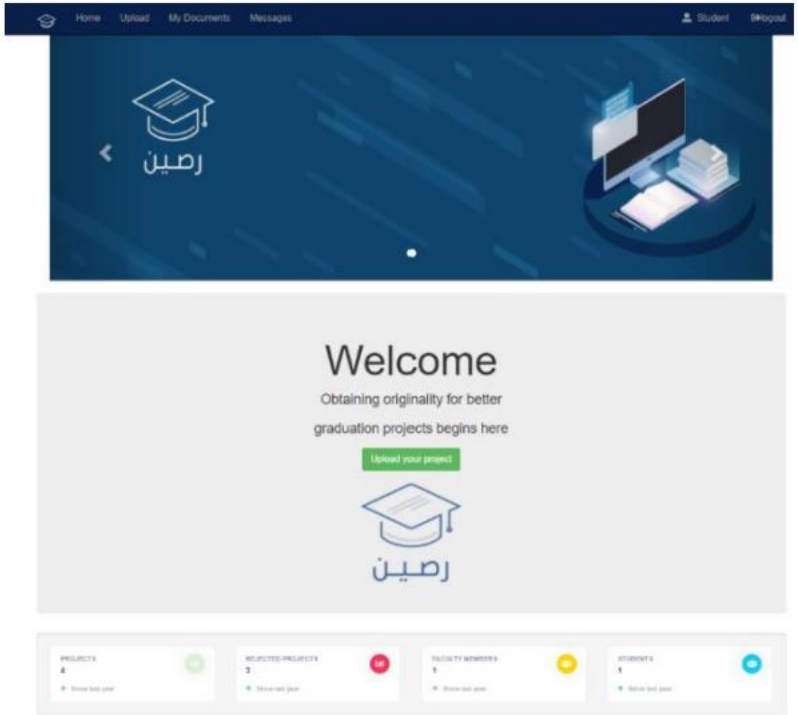
Similarity

```
                else
                {

                    CurrentUser = JsonConvert.DeserializeObject<User>(User.Identity.Name);
                    Project project = new Project()
                    {
                        StudentId = CurrentUser.Id,
                        Title = Title,
                        Abstract = result,
                        FilePath = path,
                        SubmissionDate = DateTime.Now
                    };
                    ViewBag.WordsCount = result.Split(' ').Count();
                    ViewBag.PopularWordsCount = util.SearchPopularWordsCount(result, popularWords);
                    string detail = util.SearchSimilarity(result, popularWords);
                    ViewBag.Similarity = detail.Replace("%%%", fileName + extention);
                    util.AddEditProject(project);
                    Report report = new Report()
                    {
                        ProjectId = project.Id,
                        IsAccepted = false,
                        Details = detail.Replace("%%%", fileName + extention).Replace("¬", "\n"),
                        ReportDate = DateTime.Now,
                    };
                    util.AddEditReport(report);
                }
            }
        }
        return View();
    }
    ''
```

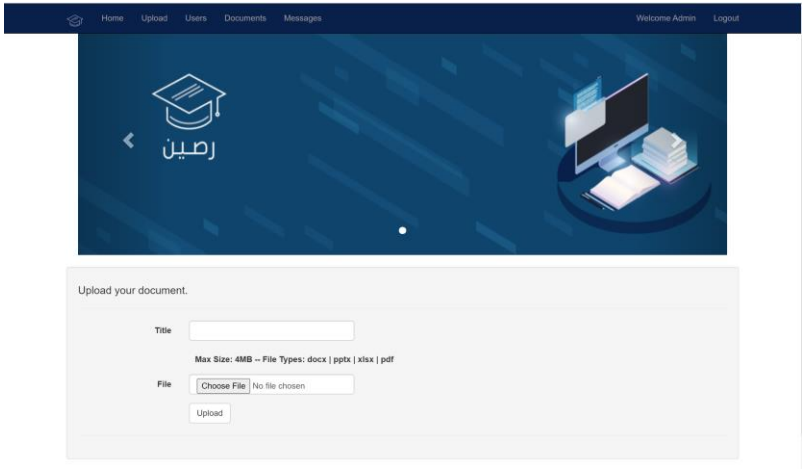
SNAPSHOT

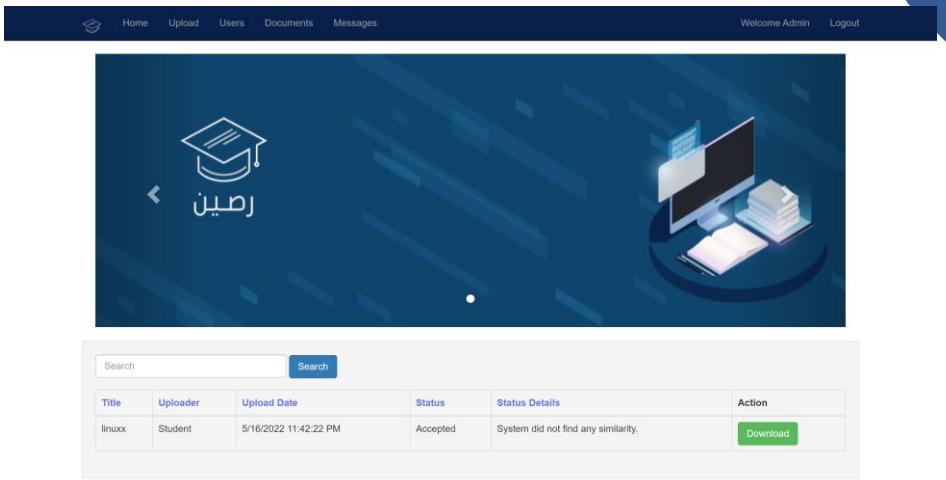
FAINAL interfaces



SNAPSHOT

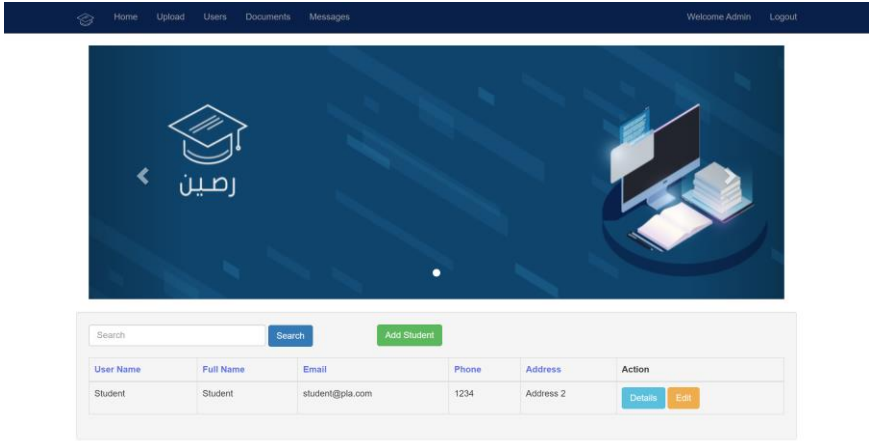
FAINAL interfaces

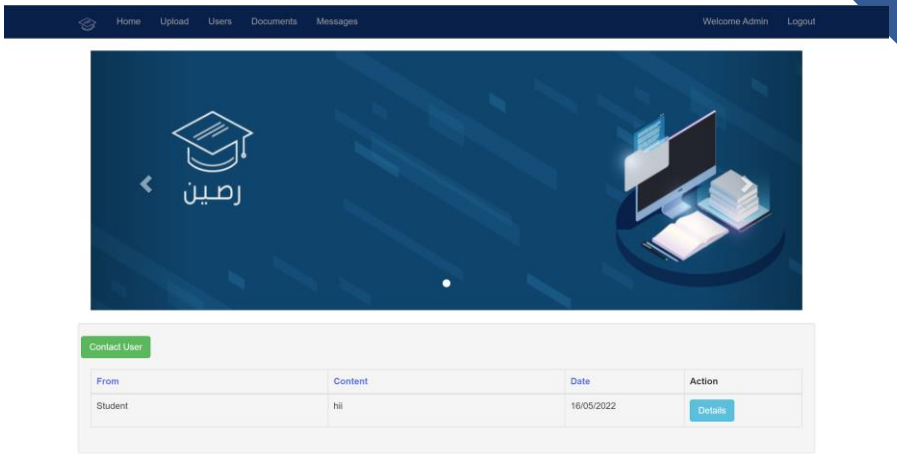




SNAPSHOT

FAINAL interfaces





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Plagiarism Online Checker

TESTING

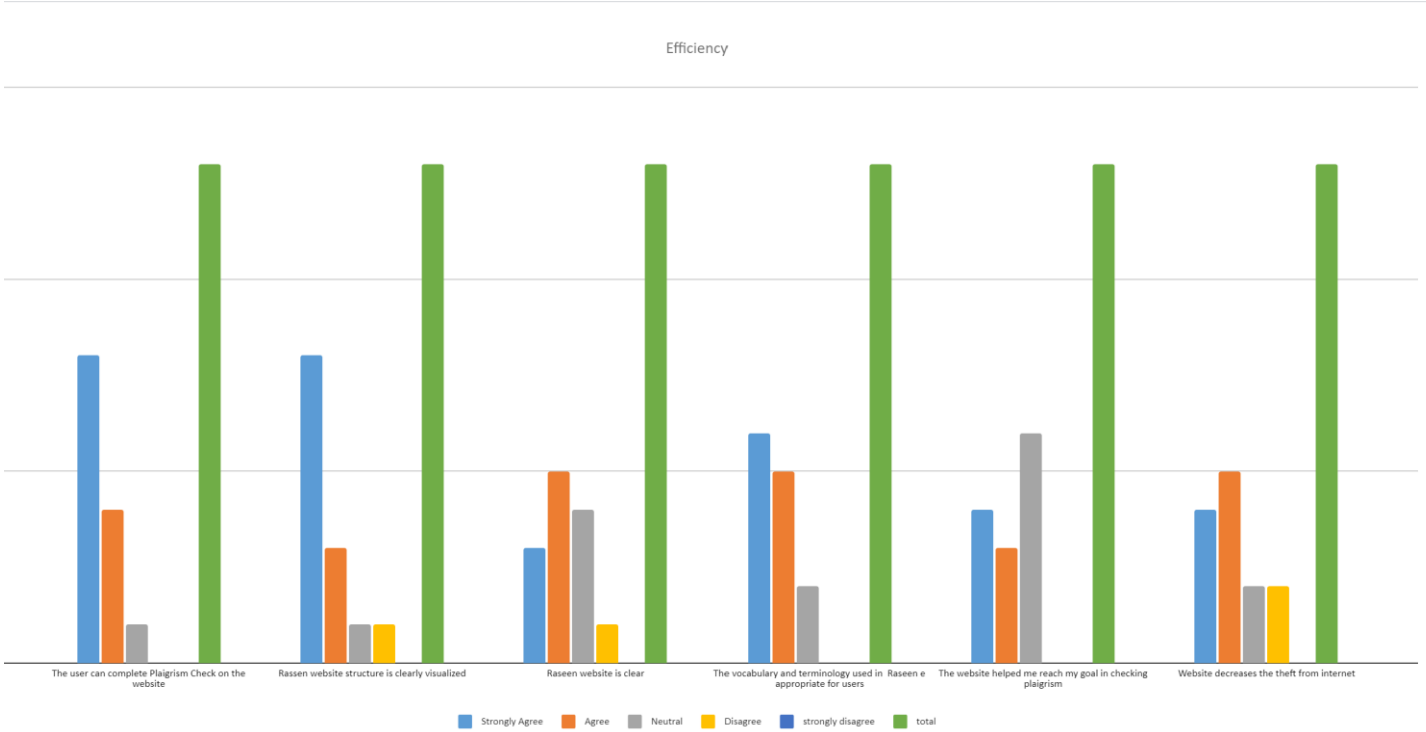
	Functional Requirements	Achieved
Admins	• System should have allow administration login to system with username and password • System should have allow administration managing users • System should have allow administration manage project documents to system	YES
Students	• System should allow students to login • System should allow students to contact specialized doctors • System should allow students uploading document for checking plagiarism and displaying checking result with documents with most similarity to document being checked • System should search documents in a quality mechanism for plagiarism checking • System should show the result of similarity to users	YES
Faculty Members	• System should allow faculty members to login • System should allow faculty members to contact students • System should allow faculty members to upload document for checking plagiarism and displaying checking result with documents with most similarity to document being checked	YES

Testing Questions

	Strongly Agree	Agree	Neutral	Disagree	strongly disagree
Efficiency:					
The user can complete Plagiarism Check on the website	8	4	1	0	0
Rassen website structure is clearly visualized	8	3	1	1	0
Raseen website is clear	3	5	4	1	0
The vocabulary and terminology used in Raseen e appropriate for users	6	5	2	0	0
The website helped me reach my goal in checking plagiarism	4	3	6	0	0
Website decreases the theft from internet	4	5	2	2	

	Strongly Agree	Agree	Neutral	Disagree	strongly disagree
Effectiveness					
Website improves communication between faculty members and students	7	4	2	0	0
Raseen website helped students to check their plagiarism and submit plagiarism free documents	6	6	1	0	0
It satisfactory for me as a student the help I got from the website	6	3	3	1	0
Having connection with faculty members was useful	5	5	3	0	0

TESTING


Efficiency
The user can complete Plaigrism Check on the website
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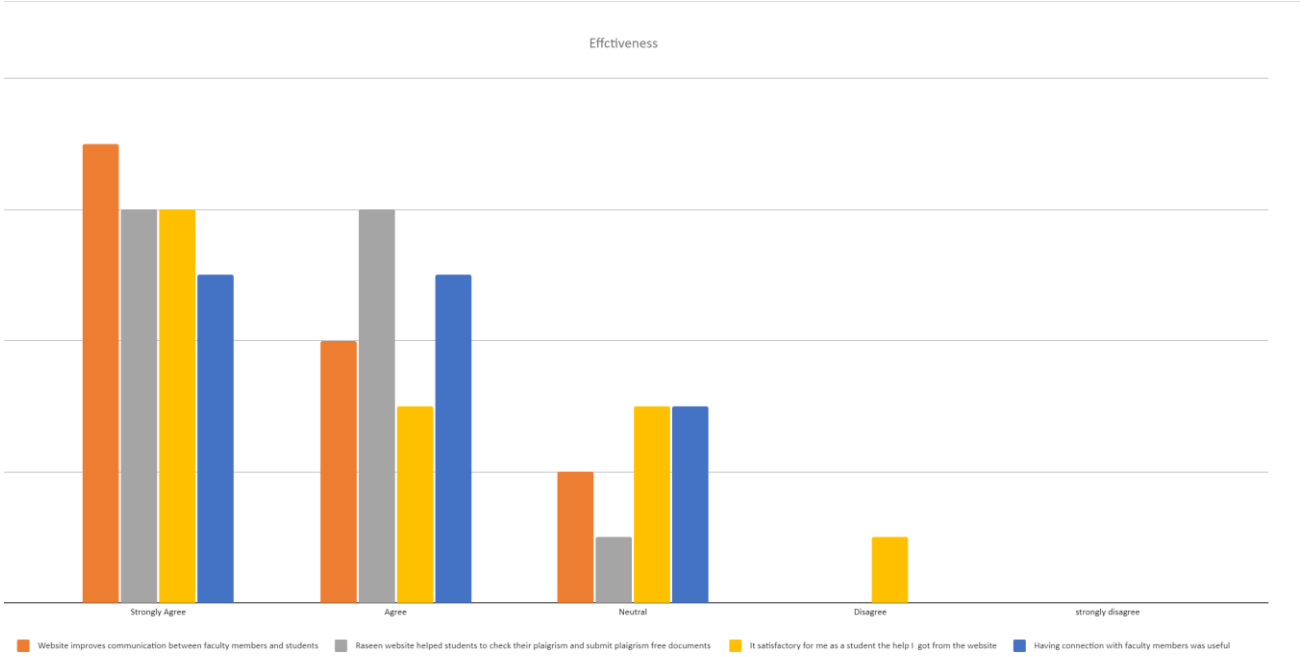
The website helped me reach my goal in checking plaigrism
Website decreases the theft from internet
Strongly Agree
Agree
Neutral
Disagree
strongly disagree
total

TESTING


Effctiveness
Strongly Agree
Agree
Neutral
Disagree
strongly disagree
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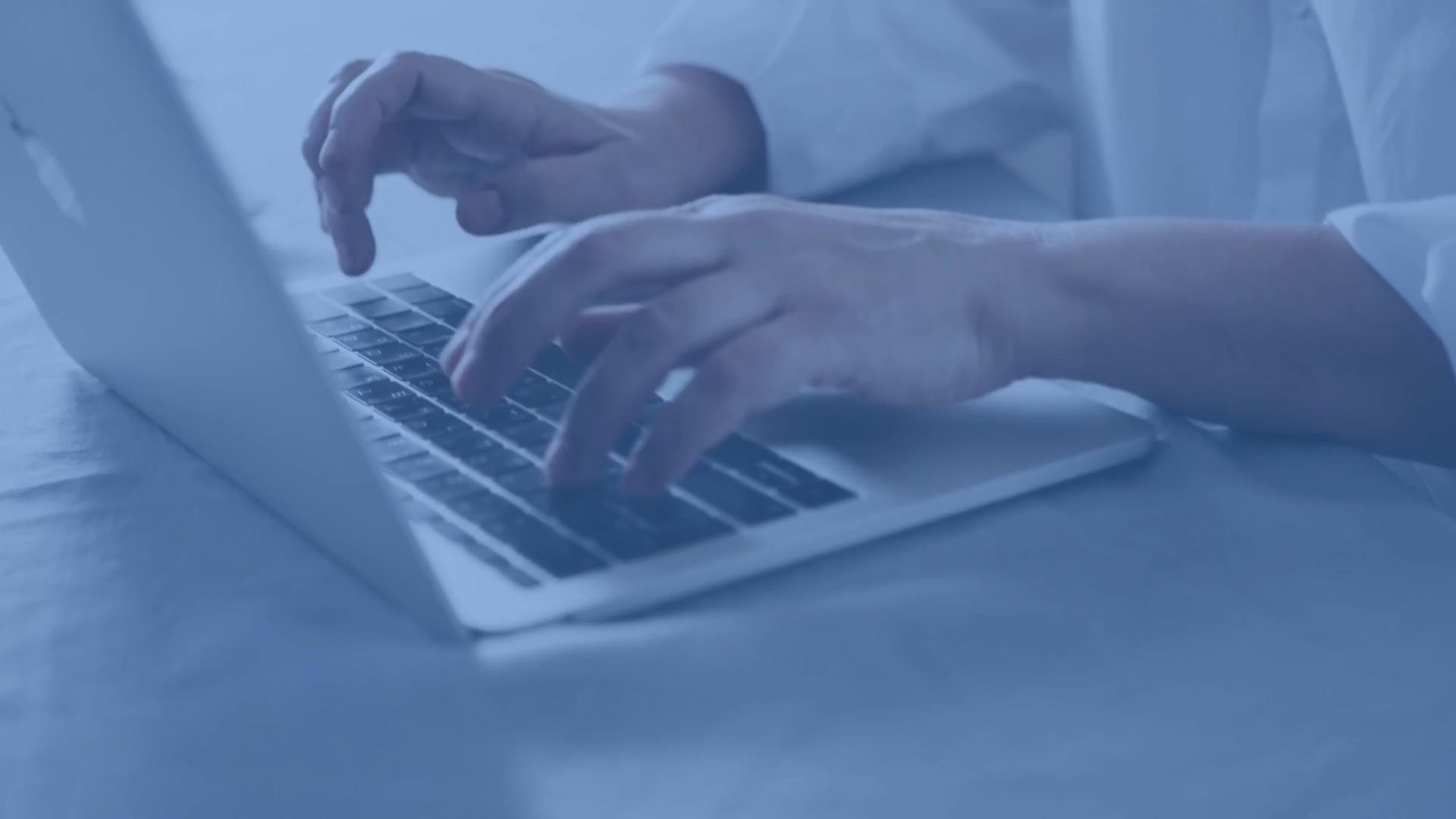
DEMO



Conclusion

Today, internet is an open source with a lot of documents and electronic data.

This may allow people to plagiarize them.

Developing a website for checking plagiarism is an urgent need. The proposed web application offers Taibah students and Faculty Members an automatic checking tool that is free

We implemented an application that detects Plagiarism in documents, we used Boyer Moore algorithm in the application and from results above we have achieved our goal in implementing the application we designed. Application is developed for students and professors in Taibah University.

Main purpose of this tool is to determine plagiarism in a document. Application search for similarities between documents and presents results in clear form. Application counts percentage of similarity, number of popular words in document and number of similar sentences. Systems search database.

Application was developed as web based. Technology used for developing is ASP.Net. Database used for files storing is Microsoft SQL server.

Future Work

This system will contain more important task such as :

١-Incorporate more documents including (projects, assignments,etc) to test the performance and reliability of the proposed model

٢-Text statics analysis which will give the user an image of words, expressions and text structure. It will give him total word, uniform word, sentences count and so on.

٣-Apply and compare different text similarity algorithms to enhance model performance

BY Studunt

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Thank you for listen