"KaryArthin: Applying For Employment"

A PROJECT REPORT

Submitted by

Mishil Dobariya 160470107013

Darshit Rathod 160470107048

Mihir Shukla 160470107054

In fulfillment for the award of the degree

Of

BACHELOR OF ENGINEERING

in

Department Of Computer Engineering



V.V.P. ENGINEERING COLLEGE, RAJKOT

Gujarat Technological University Ahmedabad

2019

INDEX

1.	INTRODUCTION	1
	1.1. Problem Summary	1
	1.2. Purpose : Goals & Objectives	
	1.3. Scope	2
	1.4. Brief Literature Review and Prior Art Search	
2.	SYSTEM ANALYSIS AND DESIGN	3
	2.1. Study of current system	3
	2.2. Problem and weakness of Current System	
	2.3. Requirements of New System	3
	2.4. Functions Of System	4
	2.4.1. Use Cases and block diagram	
	2.5. Data modeling	
	2.5.1. Class Diagram/ E R diagrams	
	2.5.2. System Activity or Object interaction Diagram	
	2.6.Functional and Behavioral Modeling	
	2.6.1. Data Flow Diagram	
	2.7.Database Design	
3.	IMPLEMENTATION	12
	3.1.Modules of Fortune Books	12
	3.1.1. Admin module	12
	3.1.2. Candidate module	12
	3.1.3. Testing module	12
	3.1.4. Chatbot	12
	3.2.Technology	13
	3.2.1. Details	
	3.2.2. About framework	13
	3.3.Screenshots	14
	3.3.1. Login page	14
	3.3.2. Dashboard	
	3.3.3. Roles	15

3.3.4. Users	15
3.3.5. Test List	16
3.3.6. Test Result	16
3.3.7. Application form	17
3.3.8. Chatbot	17
3.4.Summary of results	18
3.4.1. Advantages	18
3.4.2. Disadvantages	18
3.4.3. Upcoming features	18
4. Conclusion and discussion	19
5. References	20
Appendices	21

DECLARATION

I hereby declare that the project entitled "KaryArthin: Applying For Employment" submitted in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering to Gujarat Technological University, Ahemdabad, is a bonafide record of the project work carried out at V.V.P. ENGINEERING COLLEGE under the supervision of PROF. NIVID LIMBASIYA and that no part of the IDP/UDP has been presented earlier for any degree, diploma, associate ship, fellowship or other similar title of any other university or institution.

Team:

Mishil Dobariya	160470107013
Darshit Rathod	160470107048
Mihir Shukla	160470107054



V.V.P Engineering College Computer Engineering Department 2019-20

CERTIFICATE

1	n	_	4	_	
	v	а	u	E	

This is to certify that the IDP entitled "KaryArthin: Applying For Employment" has been carried out by MISHIL DOBARIYA under my guidance in fulfillment of the degree of Bachelor of Engineering in Computer Engineering (7th Semester) of Gujarat Technological University, Ahmadabad during the academic year 2019-20.

Guide: Head of the Department:

Prof. Nivid Limbasiya Dr. Tejas Patalia



V.V.P Engineering College Computer Engineering Department 2019-20

CERTIFICATE

1	n	_	4	_	
	v	а	u	E	

This is to certify that the IDP entitled "KaryArthin: Applying For Employment" has been carried out by **DARSHIT RATHOD** under my guidance in fulfillment of the degree of Bachelor of Engineering in Computer Engineering (7th Semester) of Gujarat Technological University, Ahmadabad during the academic year 2019-20.

Guide: Head of the Department:

Prof. Nivid Limbasiya Dr. Tejas Patalia



V.V.P Engineering College Computer Engineering Department 2019-20

CERTIFICATE

\mathbf{r}		4 .	
	•	$\mathbf{r}_{\mathbf{\Omega}}$	•
$\boldsymbol{\mathcal{L}}$	а	u	•

This is to certify that the IDP entitled "KaryArthin: Applying For Employment" has been carried out by MIHIR SHUKLA under my guidance in fulfillment of the degree of Bachelor of Engineering in Computer Engineering (7th Semester) of Gujarat Technological University, Ahmadabad during the academic year 2019-20.

Guide: Head of the Department:

Prof. Nivid Limbasiya Dr. Tejas Patalia



SQUARENEED TECHNOLOGY

150 Feet Ring Road, Rajkot, Gujarat-360004 Ph.: + 91-9408886795

Email:gopenkanjiya@gmail.com web:https://squareneed.com

Ref. No:	Date:			
This is to certify that MISHIL DOBARIYA of V.V.P Engineering College , has worked on an Industry Defined Project of SQUARENEED TECNOLOGY The work embodied in this project entitled, " KaryArthin: Applying For Employment " has been carried out in partial fulfillment for the degree of Bachelor of Engineering. He has undergone the project for the required period.				
During this period we found him sincere, honest are future endeavors.	nd diligent. We wish all success in his			
For SQUARENEED TECHNOLOGY				
GOPEN KANJIYA				
JIJIL DUDHATRA				
DATE:				



SQUARENEED TECHNOLOGY

150 Feet Ring Road, Rajkot, Gujarat-360004 Ph.: + 91-9408886795

Email:gopenkanjiya@gmail.com web:https://squareneed.com

Ref. No: Date:				
This is to certify that DARSHIT RATHOD of V.V.P Engineering College , has worked on an Industry Defined Project of SQUARENEED TECNOLOGY The work embodied in this project entitled, " KaryArthin: Applying For Employment " has been carried out in partial fulfillment for the degree of Bachelor of Engineering. He has undergone the project				
for the required period. During this period we found him sincere, honest and diligent. We wish all s future endeavors.	uccess in his			
For SQUARENEED TECHNOLOGY				
GOPEN KANJIYA JIJIL DUDHATRA				
DATE:				



SQUARENEED TECHNOLOGY

150 Feet Ring Road, Rajkot, Gujarat-360004 Ph.: + 91-9408886795

Email:gopenkanjiya@gmail.com web:https://squareneed.com

Ref. No: Date:	
This is to certify that MIHIR SHUKLA of V.V.P Engineering an Industry Defined Project of SQUARENEED TECNOLOGY this project entitled, "KaryArthin: Applying For Employment partial fulfillment for the degree of Bachelor of Engineering. He for the required period.	GY The work embodied in at" has been carried out in
During this period we found him sincere, honest and diligent. future endeavors.	We wish all success in his
For SQUARENEED TECHNOLOGY	
GOPEN KANJIYA	
JIJIL DUDHATRA	
DATE:	

Plagiarism Certificate



PLAGIARISM SCAN REPORT

Words 985 Date September 19,2019

Characters 6171 Exclude Url

0% 100% 0 38

Plagiarism Unique Sentences Unique Sentences

Content Checked For Plagiarism

ABSTRACT The project entitled "KaryArthin: Seeking Of Employment" is in today's ever-growing world there is much organization is coming into the market, for those newly organizations task of recruiting employee is difficult for them. For that one can propose the idea of automatic recruitment system, in which there will be 2-3 phases of evaluation for the candidate and based on that evaluation, selection of the candidate will proceed. In the automatic recruitment system, one of phase will be resume processing, in this phase some candidate will be sort listed based on their skills and technology. After resume processing, there will be a test for the candidate for further evaluation. There will be one admin panel from which administrator can see which candidates are shortlisted from first and second round and can send mail to the candidate for further process of selection. INTRODUCTION 1.1 Problem Summary "KaryArthin: Seeking Of Employment" is a web application for an organization or a company that can provide a digital platform for it. It also provides business solutions through it. . So with the old approach like directly personal contact for interview or test it is not easy to handle these activities. It is very hard to store information and it is also unsecured. For these processing in company required large amount of time. 1.2 Purpose: Goals & Objectives In KaryArthin We have less time required and have better performance. Main purpose of this project is to reduce human effort in industry. It can be access any time for any kind of work. It maintains the history of all candidate and give you all reports and give effective information with the help of organized structure. At the upper level entrepreneurs or higher authority requires summarize information of any organization in less time with best optimized results because at that level work is related to decision making. Small mistake can make business in loss, So it required better system for any organization. 1.3 Scope "KaryArthin" is applicable for small scale to large scale industry which has required all business related tasks like business management or employee it doesn't matter. It is modularized system that can be easy to extend for small to large scale. For any business requirement it is capable to deliver output accordingly. For any domain like either chemical industry or ceramic industry it doesn't need to rebuild so it can works in any industry not restricted in domain. 1.4 Brief Literature Review and Prior Art Search Basically in analysis face we discovered many organization which is working on pen paper not have even website. So we go there and ask about the work method they use. So after prior search we can identify too many problems related to business and then we try to discover the solution of it in world. Then we have got idea about

too many problems related to business and then we try to discover the solution of it in world. Then we have got idea about the digital platform which can solve this problem. To make one system in modularized way that can improve the business recruitment in organized manner, SYSTEM ANALYSIS AND DESIGN 2.1 Study of current system Currently the system is working on pen and paper to maintain following tasks. Employee record Resume record Shortlisted candidate record Every task are with paper work and no any digital platform is used. 2.2 Problem and weakness of current system Problems of current system are: Paper based Large time required Large human effort Less accuracy Complex structure Large amount of human mistakes No classified structure More money required More business risk 2.3 Requirement of new system Functional requirements Resume Processing Employee management Recruitment management NLP Non-Functional requirements Security of system Faster access Marketing features Advertising feature Emails and notifications 2.4 Functions Of system Function of "KaryArthin" is all about organization recruitment which provides following functions: Resume processing Candidate Automatic test conduct Score display Email system Use Cases and block diagram A use case diagram captures the actors and the role they perform in a system. It depicts the roles performed by each actor. The main five actors of system are: Admin Employee Testing Automatic test Email Score(Marks) Resume IMPLEMENTATION 3.1 Modules of KaryArthin 3.1.1 Admin module History of all candidates Shortlisted candidate from resume processing Shortlisted candidate from test Mail System Requirement page 3.1.2 Candidate module Company website Apply for job 3.1.3 Testing module Users Admin Marks Test 3.1.4 Chatbot Interaction with admin 3.2 Technology 3.2.1 Details Framework: Flask Language: Python, PHP, HTML, CSS Database: mysql Database tool: sql-yog Editor: php strom, Visual studio Code Server: xampp 3.2.2 About Framework Flask is used for connection UI with back-end It is grate for include different APIs It is grate for security Its directory structure provide fast way for developing a web application 3.4 Summary of results Advantages KaryArthin is very useful for any kind of organization of

small scale to large scales. It is a modularized software so use what you want. It is highly structural design so easy to use.

KaryArthin is not dependent on time and place. You can access it from anywhere any time when you want due to centralized database approach. Disadvantages May be it seems to like complex for some people because large amount of modules so not easy to understand. Training is required to operate the web application. Upcoming features Desktop application Android app ios app Add-on tools Customization Modification of modules Bias feature for business More theme Update UI / UX design

Conclusion and discussion KaryArthin will used by many organization because of its grate features and functionality. It seems to like grate response from organization. By the use of the software the revenue also can be generated as declare this software as pro. Take payment according to its functionality. As per Digital India Startup we can also convert current business to online. For authority level it is grate for decision making with the use of bias feature of web application. Identify marketing strategies through it.

Sources Similarity

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of task would be incomplete without the mention of the people who made it possible, whose constant guidance, support and encouragement crown all the efforts with success.

My sincere thanks to Principal **Dr. Jayesh Deshkar**, H.O.D. of C.E department **Dr. Tejas Patalia** for having consented to be the guide and for their valuable guidance and support during the preparation of this project.

Also, **Prof. Nivid Limbasiya** of C.E. Department helped us to work out on the software side of our project. Last but not the least, our sincere dedication and keen to learn something new helped us to achieve success in the project.

I would also like to thank to **GOD**, **my family and friends** who have been a constant source of inspiration.

ABSTRACT

The project entitled "KaryArthin: Applying For Employment" is in today's ever-growing world there is much organization is coming into the market. for those newly organizations task of recruiting employee is difficult for them.

For that one can propose the idea of automatic recruitment system, in which there will be 2-3 phases of evaluation for the candidate and based on that evaluation, selection of the candidate will proceed.

In the automatic recruitment system, one of phase will be resume processing, in this phase some candidate will be sort listed based on their skills and technology.

After resume processing, there will be a test for the candidate for further evaluation.

There will be one admin panel from which administrator can see which candidates are shortlisted from first and second round and can send mail to the candidate for further process of selection.

Team Id: 59749 Introduction

1. INTRODUCTION

1.1 Problem Summary

"KaryArthin: Applying For Employment" is a web application for an organization or a company that can provide a digital platform for it. It also provides business solutions through it.

In today's era all things going to be digital or computerized so for any industry or company it also required digital platform for faster growth of particular organization. Calculation or transactions are much faster with digital platform rather than human effort.

So with the old approach like directly personal contact for interview or test it is not easy to handle these activities. It is very hard to store information and it is also unsecured. For these processing in company required large amount of time.

1.2 Purpose: Goals & Objectives

"KaryArthin" can have all above feature with highly centralized database system which can make easier for any company. We have less time required and have better performance.

Main purpose of this project is to reduce human effort in industry. It can be access any time for any kind of work. It maintains the history of all candidate and give you all reports and give effective information with the help of organized structure.

At the upper level entrepreneurs or higher authority requires summarize information of any organization in less time with best optimized results because at that level work is related to decision making. Small mistake can make business in loss. So it required better system for any organization.

Main objective of this project is to give freedom or make business easy. To increase the level of company it is necessary and stay with market competition.

Team Id: 59749 Introduction

1.3 Scope

"KaryArthin" is applicable for small scale to large scale industry which has required all business related tasks like business management or employee it doesn't matter.

It is modularized system that can be easy to extend for small to large scale. For any business requirement it is capable to deliver output accordingly.

For any domain like either chemical industry or ceramic industry it doesn't need to rebuild so it can works in any industry not restricted in domain. It contains generalize structure so we can easily use this product.

Scope of this web application is not rigid to product like it can work for any product either it can be wall tiles or any ginning industry.

1.4 Brief Literature Review and Prior Art Search

Basically in analysis face we discovered many organization which is working on pen paper not have even website. So we go there and ask about the work method they use. So after prior search we can identify too many problems related to business and then we try to discover the solution of it in world.

Then we have got idea about the digital platform which can solve this problem. To make one system in modularized way that can improve the business recruitment in organized manner.

We identify similar product on web. Which gives us to identify the correct solution. From that we can identify our activity, users, environment, idea, objects.

2. SYSTEM ANALYSIS AND DESIGN

2.1 Study of current system

Currently the system is working on pen and paper to maintain following tasks.

- Employee record
- Resume record
- Shortlisted candidate record

Every task are with paper work and no any digital platform is used.

2.2 Problem and weakness of current system

Problems of current system are:

- Paper based
- Large time required
- Large human effort
- Less accuracy
- Complex structure
- Large amount of human mistakes
- No classified structure
- More money required
- More business risk

2.3 Requirement of new system

Functional requirements

- Resume Processing
- Employee management
- Recruitment management
- NLP

Non-Functional requirements

- Security of system
- Faster access
- Marketing features
- Advertising feature
- Emails and notifications

2.4 Functions Of system

Function of "KaryArthin" is all about organization recruitment which provides following functions:

- Resume processing
- Employee management
- Candidate management
- Automatic test conduct
- Score display
- Email system

2.4.1 Use Cases and block diagram

A use case diagram captures the actors and the role they perform in a system. It depicts the roles performed by each actor. The main five actors of system are:

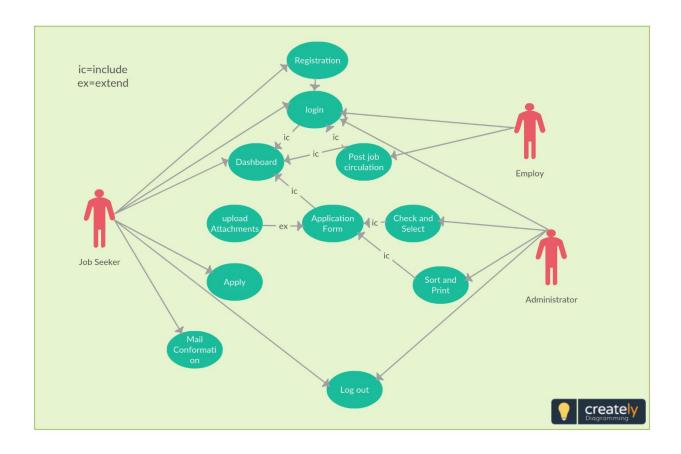
- Admin
- Employee
- Testing
- Automatic test
- Email
- Score(Marks)
- Resume

Block diagram for KaryArthin



This block diagram represent event trace or scenario of "KaryArthin" in which all activity under the web application is listed. It is a mind map for project.

Use case for KaryArthin

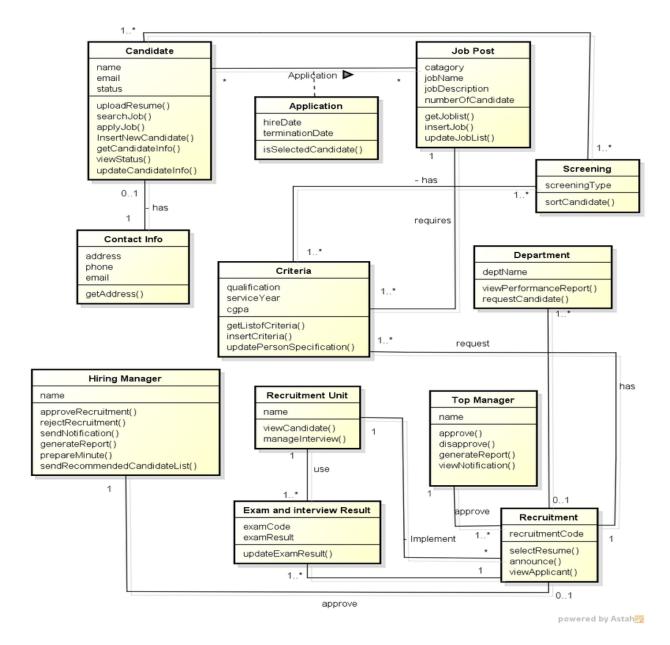


2.5 Data modeling

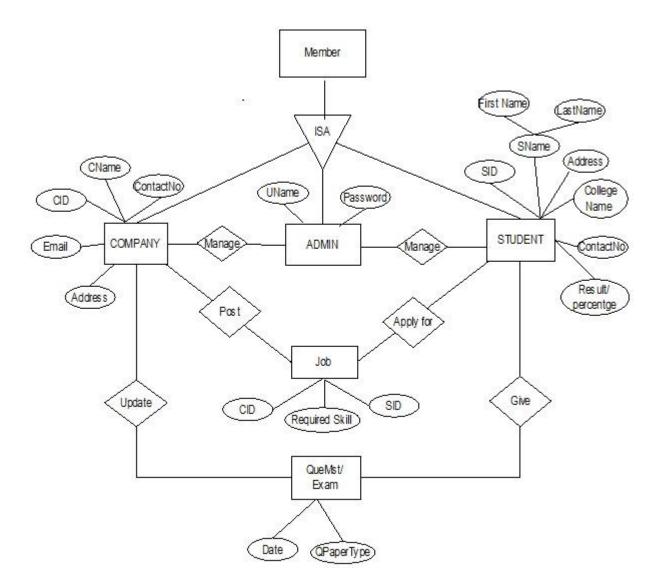
Data modeling is a process used to define and analyze **data** requirements needed to support the business processes within the scope of corresponding information systems in organizations.

2.5.1 Class Diagram of KaryArthin

The class diagram below represents the important classes implemented for the application with their operations and return types. The diagram also shows how each class is associated with other classes in the system.

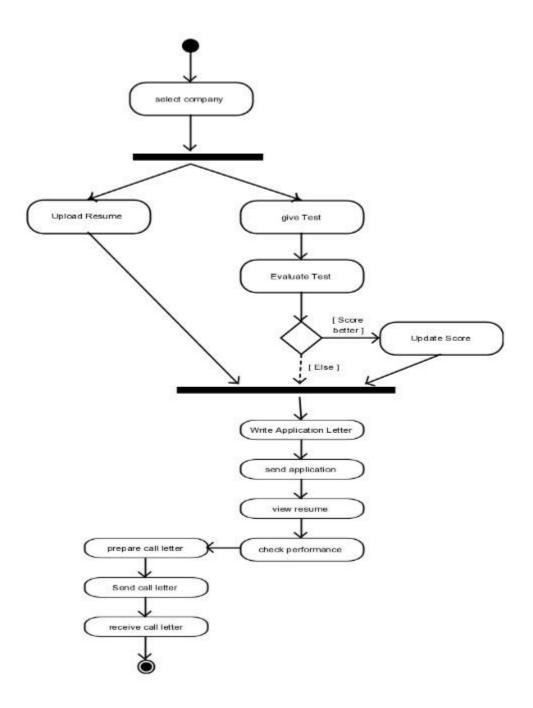


ER diagram for KaryArthin



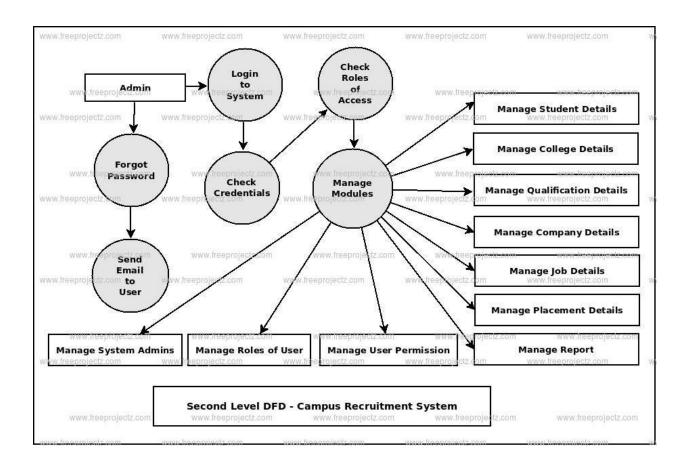
9

2.5.2 Activity Diagram for recruitment

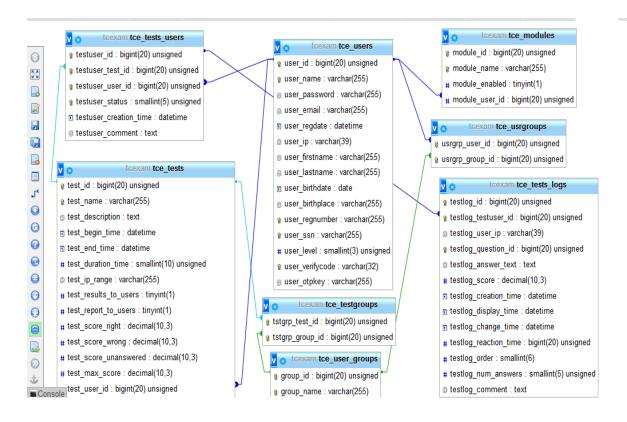


2.6 Functional and Behavioral Modeling

2.6.1 Data flow Diagram



2.7 Database Design



3. IMPLEMENTATION

3.1 Modules of KaryArthin

3.1.1 Admin module

- History of all candidates
- Shortlisted candidate from resume processing
- Shortlisted candidate from test
- Mail System
- **■** Requirement page

3.1.2 Candidate module

- **■** Company website
- Apply for job

3.1.3 Testing module

- Users
- **■** Admin
- Marks
- **■** Test

3.1.4 Chatbot

■ Interaction with admin

3.2 Technology

3.2.1 Details

► Framework : Flask

► Language : Python, PHP, HTML, CSS

■ Database : mysql

■ Database tool : sql-yog

■ Editor : php strom, Visual studio Code

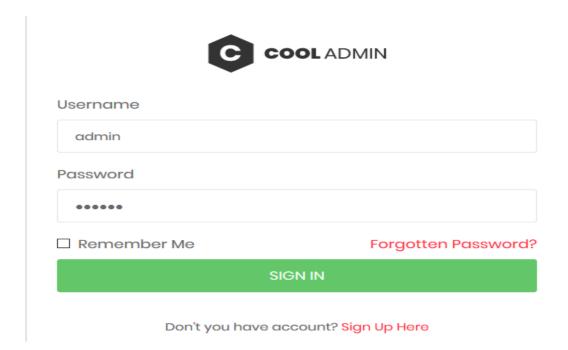
► Server : xampp

3.2.2 About Framework

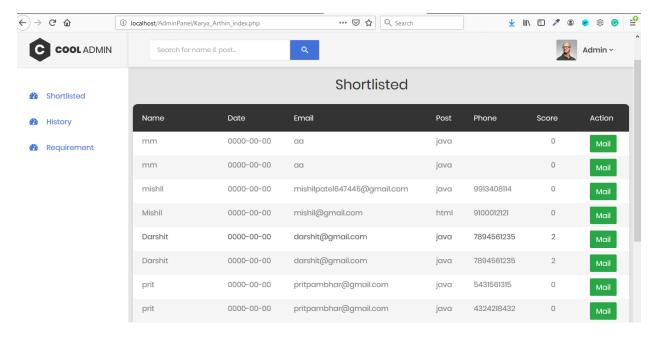
- Flask is used for connection UI with back-end
- It is grate for include different APIs
- It is grate for security
- Its directory structure provide fast way for developing a web application

3.3 Screenshots

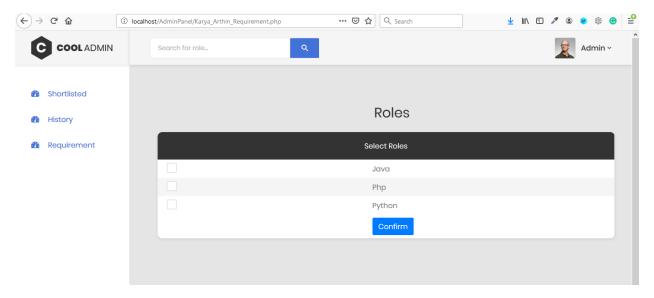
3.3.1 Login Page



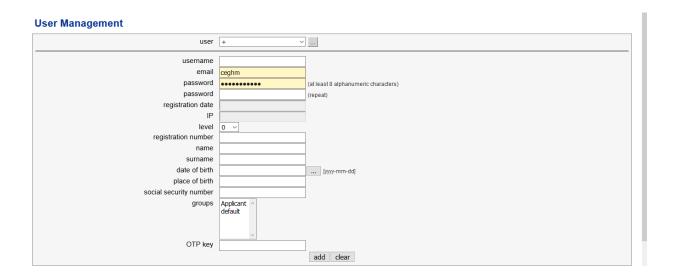
3.3.2 Dashboard



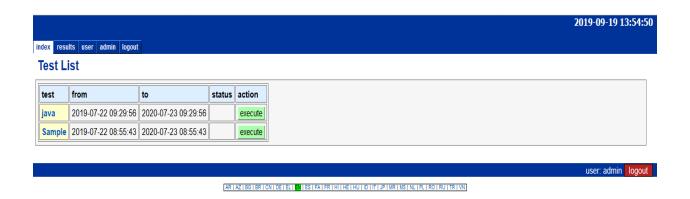
3.3.3 Roles



3.3.4 Users

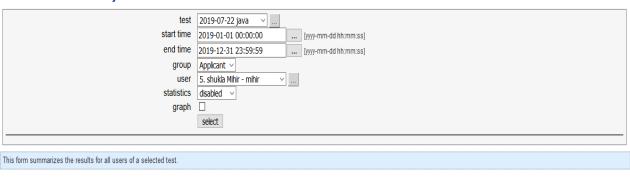


3.3.5 Test List



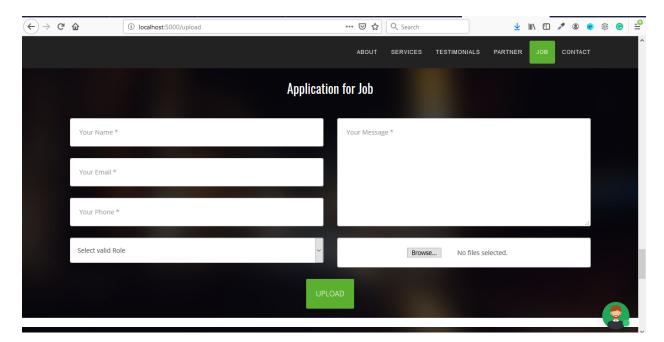
3.3.6 Test Result

Test Results Summary

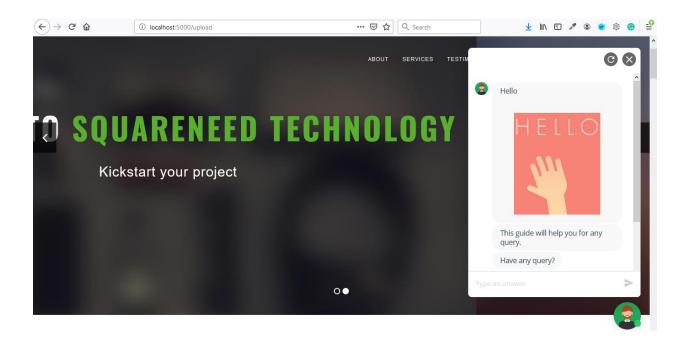


AR | AZ | BG | BR | CN | DE | EL | EN | ES | FA | FR | HI | HE | HU | ID | IT | JP | MR | MS | NL | PL | RO | RU | TR | VN

3.3.7 Application Form



3.3.8 Chatbot



3.4 Summary of results

3.4.1 Advantages

KaryArthin is very useful for any kind of organization of small scale to large scales. It is a modularized software so use what you want. It is highly structural design so easy to use. KaryArthin is not dependent on time and place. You can access it from anywhere any time when you want due to centralized database approach.

3.4.2 Disadvantages

May be it seems to like complex for some people because large amount of modules so not easy to understand. Training is required to operate the web application.

3.4.3 Upcoming features

- Desktop application
- Android app
- ios app
- Add-on tools
- Customization
- Modification of modules
- Bias feature for business
- More theme
- Update UI / UX design

Team Id: 57949 Conclusion and discussion

4. Conclusion and discussion

KaryArthin will used by many organization because of its grate features and functionality. It seems to like grate response from organization. By the use of the software the revenue also can be generated as declare this software as pro. Take payment according to its functionality. As per Digital India Startup we can also convert current business to online. For authority level it is grate for decision making with the use of bias feature of web application. Identify marketing strategies through it.

Team Id: 57949 References

5. References

- **■** Google
- ► https://www.google.com
- **■** Stackoverflow
- ► https://stackoverflow.com

Team Id: 57949 Appendix

Appendix

1. PPR (Periodic Progress Reports)

PPR 1

PPR Details

Periodic Progess Report: First PPR

Project : KaryArthin Status : Reviewed

1. What Progress you have made in the Project?

Analysis of industrial problem in recruitment process. Research about Algorithms.

2. What challenge you have faced?

How to find some inustrial problem faced by Industry. How to give effective solution using latest technoloy. These all we faced during intial level of project.

What support you need?

We need some algorithm references which we are going to use in this project and knowledge of cross platform integration.

4. Which literature you have referred?

Online Tutorials ppr name Standard Documentation of technology

Comments

Comment by Internal Guide:

None

Comment by External Guide:

None

Comment by HOD:

None

Comment by Principal:

None

Comment by University Admin:

None

Team Id: 57949 Appendix

• PPR 2

PPR Details

Periodic Progess Report : Second PPR

Project : KaryArthin Status : Reviewed

What Progress you have made in the Project?
 Analysis about character recognition algorithm.

2. What challenge you have faced?

How to implement character recognition algorithm

What support you need?Highly configured Hardware.

4. Which literature you have referred?

Online Tutorials Standard Documentation of technology

Comments

Comment by Internal Guide:

None

Comment by External Guide:

None

Comment by HOD:

None

Comment by Principal:

None

Comment by University Admin:

None

• PPR 3

PPR Details

Periodic Progess Report: Third PPR

Project : KaryArthin Status : Reviewed

1. What Progress you have made in the Project?

Analysis about UI.

2. What challenge you have faced?

How to code UI using new technologies.

3. What support you need?

Learning of diffrent technologies to create UI Ex:Bootstrap

4. Which literature you have referred?

Online Tutorials Standard Documentation of technology

Comments

Comment by Internal Guide:

None

Comment by External Guide:

None

Comment by HOD:

None

Comment by Principal:

None

Comment by University Admin:

None

PPR 4

PPR Details

Periodic Progess Report: Forth PPR

Project : KaryArthin Status : Reviewed

1. What Progress you have made in the Project?

Implementation of document processing

2. What challenge you have faced?

How to Integrate code with UI

3. What support you need?

Different library for implementation of Document processing

4. Which literature you have referred?

Online tutorials Standard documentation

Comments:

Comment by Internal Guide:

None

Comment by External Guide:

None

Comment by HOD:

None

Comment by Principal:

None

Comment by University Admin:

None

• PPR 5

PPR Details

Periodic Progess Report : Forth PPR

Project : KaryArthin Status : Reviewed

What Progress you have made in the Project?
 Implementation of Database and Data modeling

2. What challenge you have faced?

How to normalize data??

3. What support you need?

Mysql serve and Understanding of database structure

Which literature you have referred?

Online Tutorials Standard Documentations

\sim	_		 	4-
	"	ш		
	v			

Comment by Internal Guide:

None

Comment by External Guide:

None

Comment by HOD:

None

Comment by Principal:

None

Comment by University Admin:

None

• PPR 6

PPR Details

Periodic Progess Report: Forth PPR

Project : KaryArthin Status : Reviewed

What Progress you have made in the Project?
 Implementation of UI using bootstrap, HTML, CSS etc.

2. What challenge you have faced?

Integration of one technology with another one.

3. What support you need?

how to integrate one technology with other technologies.

4. Which literature you have referred?

Tutorials of some technologies like as:Bootstrap, JQuery, AJAX etc.

Comments

Comment by Internal Guide :

None

Comment by External Guide:

None

Comment by HOD:

None

Comment by Principal:

None

Comment by University Admin:

None

Patent Search & Analysis Report

• PSAR 1

PSAR No. : 19BE7_160470107013_1

-Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Automated Employee Selection, Automatic selection, Employee Selection

3. Search String Used : Automated system for selecting employee

4. Number of Results/Hits getting : 9000

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06F 15/21

7. Title of Invention : AUTOMATED METHOD FOR SELECTING PERSONNEL MATCHED TO JOB CRITERIA

8. Patent No. : 5,164,897 9. Application No. : 369,650

https://patents.google.com/patent/US5164897A/en?q=automated&q=employee&q=selection&

oq=automated+employee+selection+

10. Date of Filing/Application : 06/21/1989

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date : 11/17/1992 **14. First Filled Country** : 284

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Neil M Clark	St. Louis Park

17. Applicant

Address/City/Country of Applicant
Minneapolis
Ai

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is only developed by computer and information technology.

20. Specific Problem Solved/Objective of Invention:

The invention is directed to an automated method of selecting personnel matched to particular job requirements, and, more particularly, to a method of selecting qualified job candidates for positions defined by specific selection criteria based upon encoded job classification titles, industrial experience and special qualifications.

21. Brief about Invention:

The most commonly known method of matching personnel to job specification criteria requires a person trained in job placement skills to manually review docu ments such as resumes and other qualifications related documents while comparing such documents to criteria specified by the potential employer. Such a manual system has several drawbacks. It is obviously very slow in most cases since there is no fast way to sort unqualified candidates from qualified candidates on a large scale basis. Some automated systems for selecting personnel based on job criteria do exist. It is believed that such systems are almost exclusively based upon the use of key word searching. That is, qualifications of various personnel are stored in a computer database as, for example, in the form of resumes. The searcher then types in certain key words which relate to the job qualification criteria hoping to match the key words with the job criteria. Such systems are limited by the fact that the use of key Words is very imprecise.

Such systems are further limited by misspellings which can commonly occur in large databases and which may cause candidates to be missed by a key word approach. Such systems also require a complete line-by line search of every file in the system to avoid missing potential candidates.

22. Key Learning Points:

Automated recruitment system for any organization to select / hire employee.

23. Summary of Invention:

The present invention offers advantages and improvements over the prior art because it provides a fast, automated, logically organized, user friendly method for matching the qualifications of job candidates to particular job related criteria as supplied by potential employers. The method of the invention includes the step of selecting a first set of employee records having qualifications matching at least one of the predetermined set of first job criteria from a first data file.

A second step may be included to select a second set of employee records having qualifications matching at least one of a predetermined set of second job criteria from a second data file.

A third data file including employee records having a third job selection criteria code and a corresponding employee code. This results in three groups of selected employee records. The method of the invention then requires selecting the records of those employees whose employee codes occur at least once in each of the matched sets.

24. Number of Claims : 3

25. Patent Status : Expired Patent

26. How much this invention is related with your IDP/UDP? $$: $$ 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it?:

This is already much better so no need of improvement

PSAR 2

: 19BE7_160470107013_2 PSAR No.

-Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Automated document processing ,Natural language processing,Image scanning

3. Search String Used : Document processing

4. Number of Results/Hits getting : 6000

-Part - II : BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06K 9/00

: AUTOMATED DOCUMENT PROCESSING SYSTEM USING FULL IMAGE SCANNING 7. Title of Invention

8. Patent No. 6,665,431 : 10/037,339 9. Application No.

https://patents.google.com/patent/US6665431B2/en?q=automated&q=employee&q=selection& oq=automated+employee+selection+ 9a. Web link of the studied patent

01/04/2002 10. Date of Filing/Application

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date 12/16/2003 14. First Filled Country : 284

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
John E Jones	Winnetka

17. Applicant

Cummine Allison Corn Mt Brosnert		Name of Applicant/Assignee	Address/City/Country of Applicant
Cultifiliaria and Cultifiliari	Cu	umminsAllison Corp	Mt. Prospect

18. Applicant for Patent is : Company

-Part - III: TECHNICAL PART OF PATENTED INVENTION-

19. Limitation of Prior Technology/Art:

This technology is only developed by computer and information technology.

20. Specific Problem Solved/Objective of Invention:

A document processing system comprises an input receptacle for receiving documents. A transport mechanism receives the documents from the input receptacle and transports the documents past a full image Scanner and a discrimination unit. An output receptacle receives the documents from the transport mechanism after being transported past the full image Scanner and the discrimination unit.

21. Brief about Invention:

The present invention relates to document processing Systems. Such as automatic teller machines and currency redemption machines.

22. Key Learning Points:

Automated recruitment system for any organization to select / hire employee.

23. Summary of Invention:

The primary object of the invention is to provide a document and currency processing System capable of pro cessing documents utilizing full image Scanning and a currency discriminator.

24. Number of Claims : 41

25. Patent Status : Expired Patent

26. How much this invention is related with your IDP/UDP? $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$

27. Do you have any idea to do anything around the said invention to improve it?:

This is already much better so no need of improvement.

PSAR 3

PSAR No. : 19BE7_160470107013_3

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Employee hire, Employee selection, Employement

3. Search String Used : Employee selection for organization

4. Number of Results/Hits getting : 8010

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06F 17/00

7. Title of Invention : ELECTRONIC EMPLOYEE SELECTION SYSTEMIS AND METHODS

 8. Patent No.
 : 7,310,626

 9. Application No.
 : 11/042,544

9a. Web link of the studied patent : https://patents.google.com/patent/US7310626B2/en?q=employee&q=hire&oq=employee+hire+

10. Date of Filing/Application : 01/24/2005

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

 13. Publication Date
 : 12/18/2007

 14. First Filled Country
 : 284

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
David J Scarborough	WestLinn
Bjorn Chambless	OR (US)

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Kronos Talent Management Inc	Beaverton

18. Applicant for Patent is : Company

Part - III : TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is only developed by computer and information technology.

20. Specific Problem Solved/Objective of Invention:

An automated employee selection system can use a variety of techniques to provide information for assisting in selection of employees. For example, pre-hire and post-hire information can be collected electronically and used to build an artificial-intelligence based model.

21. Brief about Invention :

The model can then be used to predict a desired job performance criterion (e.g., tenure, number of accidents, sales level, or the like) for new applicants. A wide variety of features can be supported. Such as electronic reporting. Pre-hire information identified as ineffective can be removed from a collected pre-hire information. For example, ineffective questions can be identified and removed from a job application. New items can be added and their effectiveness tested. As a result, a system can exhibit adaptive learning and maintain or increase effectiveness even under changing conditions.

22. Key Learning Points:

Automated recruitment system for any organization to select / hire employee.

23. Summary of Invention:

Large organizations can bring considerable resources to bear on the task of developing a job application. For example, a large retail chain might consult with an industrial psychologist to study the job environment and develop a set of questions that ostensibly predict whether an individual will excel in the environment.

24. Number of Claims : 47

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

This is already much better so no need of improvement.

PSAR 4

PSAR No. : 19BE7_160470107013_4

-Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Recruitment System, Automatic Recruitment, Recruiting Management System

3. Search String Used : Automatic Recruitment System

4. Number of Results/Hits getting : 9051

-Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06F 17/60

7. Title of Invention : INTEGRATED AUTOMATED RECRUITING MANAGEMENT SYSTEM

 8. Patent No.
 : 2002/0143573

 9. Application No.
 : 10/113,565

9a. Web link of the studied patent : https://patents.google.com/patent/US20020143573A1/en?q=automated&q=recruitment&

og=automated +recruitment

10. Date of Filing/Application : 04/02/2002

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

| 2002/0143573 which Patent is published) | 2002/0143573 | 2002/0143573 | 13. Publication Date | 10/03/2002 | 14. First Filled Country | 284

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
John M Bryce	Blacksburg

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Richard C Litman	LITMAN LAW OFFICES

18. Applicant for Patent is : Company

-Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is only developed by computer and information technology.

20. Specific Problem Solved/Objective of Invention:

The integrated automated recruiting management System has three main components: a criterion matching application for matching a job Seeker's skills and qualification's with those required by a job posting

21. Brief about Invention:

a message center Server and downloadable client for providing a recruiter with a way of communicating particular Screening questions to a Job Seeker and receiving a response in text, audio or video, and a web-based job recruiter application for providing an Internet web site accessible to job recruiters and job Seekers and for coordinating the first two components. The System permits a recruiter to post a detailed job posting, receives job Seeker applications, ranks and Sorts candidates according to skills and qualifications, automatically queries job Seeker references, communicates recruiter questions to job Seekers and receives responses, including audio and video, provides the recruiter with a package of the information collected, and automated tools for Scheduling interviews.

22. Key Learning Points:

Automated recruitment system for any organization to select/hire an employee.

23. Summary of Invention:

The System permits a recruiter to post and distribute a detailed job posting, receives job Seeker applications, ranks and Sorts candidates according to Skills and qualifications, automatically queries job Seeker references, communicates recruiter questions to job Seekers and receives responses, including audio and video, provides the recruiter with a package of the information collected, and automated tools for processes Such as Scheduling interviews, communicating with candidates, and making decisions.

24. Number of Claims : 17

25. Patent Status : Other (Abandoned)

26. How much this invention is related with your IDP/UDP? $$: $$ 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

This is already much better so no need for improvement.

PSAR 5

PSAR No. : 19BE7_160470107013_5

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Information exchange, Employment compatibility verification , Automated employement

3. Search String Used : Automated Recruitment

4. Number of Results/Hits getting : 8052

-Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06Q 10/00

7. Title of Invention : Automated employment information exchange and method for employment compatibility verification

 8. Patent No.
 : 2011/0055098

 9. Application No.
 : 12/387,176

9a. Web link of the studied patent : https://patents.google.com/patent/US20110055098A1/en?q=automated&q=recruitment&

oq=automated+recruitment

10. Date of Filing/Application : 04/29/2009

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

 13. Publication Date
 : 03/03/2011

 14. First Filled Country
 : 284

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
jeffrey A Stewart	New york (US)

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
jeffrey A Stewart	New york (US)

18. Applicant for Patent is : Individual

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is only developed by computer and information technology.

20. Specific Problem Solved/Objective of Invention:

A computer implemented system is provided to manage the exchange of information about people seeking employment with Suitable job opportunities through the use of linguistic technologies.

21. Brief about Invention:

The system is particularly useful for job hiring environments which require an exchange between companies looking to hire employees and individuals seeking employment. The system manages a database of job candidates who have been interviewed and answers have been recorded. The system converts the candidate's answers into a personal linguistic profile and then analyzes the linguistic profile to reveal the candidates unique talents and skills to find the most Suitable job opportunities.

22. Key Learning Points:

Automated recruitment system for any organization to select/hire an employee.

23. Summary of Invention:

Despite the tremendous advantage of using text analytics and statistical pattern recognition, sales hiring decisions are still mainly conducted based on "gut instinct". This is highly inefficient and results in an industry wide hiring success rate of only 50%. The present invention offers a Solution to change that by providing companies a scientifically driven approach to finding, screening and assessing sales professionals in order to find the best matched candidates for their open positions. The invention can also be used by companies to assess members of their current sales organization, or any other position that relies heavily on verbal communication. It is the object of the present invention to apply process and technology to a function that historically was performed based on "gut instinct" or was delegated to human resource generalists with limited intimate knowledge of the selling process.

24. Number of Claims : 20

25. Patent Status : Other (Abandoned)

26. How much this invention is related with your IDP/UDP? $$: $$ 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

This is already much better so no need for improvement.

PSAR 6

PSAR No. : 19BE7_160470107048_1

-Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : extracting images from document, extracting images from PDF, extracting images

3. Search String Used : extracting images from portable document format

4. Number of Results/Hits getting : 5000

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06K9/00

7. Title of Invention : Method and device for extracting images from portable document format documents

8. Patent No.

9. Application No. : 15/646,512

9a. Web link of the studied patent : https://patents.google.com/patent/US20180341830A1/en?oq=US+2018%2f0341830+A1

10. Date of Filing/Application : 07/11/2017

11. Priority Date

 ${\bf 12.\ Publication/Journal\ Number-(Issue\ No.\ of\ Journal\ in}$

which Patent is published)

13. Publication Date

14. First Filled Country : 100

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Balaji Jagan	Dindigul (IN)

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
WIPRO LIMITED	BANGALORE

18. Applicant for Patent is Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This Technology is only developed by Computer and IT firms.

20. Specific Problem Solved/Objective of Invention:

A method and device for extracting images from PDF

documents are disclosed . The method includes performing a

text recognition process on a PDF document that includes

one or more images . The text recognition process replaces the one or more images with a plurality of contiguous

newlines

21. Brief about Invention:

The method further includes storing a location of

each of the one or more images within the PDF document

based on the occurrence of the plurality of contiguous newlines

within the PDF document. The method includes converting each page of the PDF document to an image format in order

to generate an image document corresponding to the PDF

document. The method further includes extracting each of

the one or more images from the image document based on

the location stored for each of the one or more images within

the PDF document

22. Key Learning Points:

Image Processing

23. Summary of Invention:

or more images with a

plurality of contiguous newlines . The method further

includes storing , by the image extraction device , a location $% \left(1\right) =\left(1\right) \left(1$

of each of the one or more images within the PDF document

based on occurrence of the plurality of contiguous newlines

within the PDF document . The method includes converting , by the image extraction device , each page of the PDF

document to an image format in order to generate an image

document corresponding to the PDF document . The method $% \left(\mathbf{r}\right) =\left(\mathbf{r}\right)$

 $further\ includes\ extracting\ ,\ by\ the\ image\ extraction\ device\ ,\ each\ of\ the\ one\ or\ more\ images\ from\ the\ image\ document$

based on the location stored for each of the one or more

images within the PDF document

24. Number of Claims : 19

25. Patent Status : Other (Pending)

26. How much this invention is related with your IDP/UDP? $$: $$ < 70 %

27. Do you have any idea to do anything around the said invention to improve it? :

This is already much better. So No need to improve.

PSAR 7

PSAR No. : 19BE7_160470107048_2

-Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : online Job System, Recruitment System, Online Employment System

3. Search String Used : Online Job Recruitment System

4. Number of Results/Hits getting : 5000

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06F 9/46

7. Title of Invention : INTEGRATED ONLINE JOB RECRUITMENT SYSTEM

 8. Patent No.
 : US 7,653,567 B2

 9. Application No.
 : US11/525,343

9a. Web link of the studied patent : https://patents.google.com/patent/US7653567B2/en?oq=US+7%2c653%2c567+B2

10. Date of Filing/Application : 09/22/2006

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date

14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Jason Stuart Gorham	6132 Willoughby Cir.

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
SHARKSTRIKE LLC	FL

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology only can be developed using a computer and IT.

20. Specific Problem Solved/Objective of Invention:

One can recruit employees in an easy manner and time-saving technique for recruitment.

21. Brief about Invention :

The present invention provides an easy to use system and method for assisting job seekers in locating job opportunities and applying for the same using an online connectivity protocol which is simple to use and highly efficient in terms of time consumption. The system identifies and extracts keywords from the job postings in an accessible job database to create a keyword-targeted list that excludes common words and phrases.

22. Key Learning Points:

online recruitment system

23. Summary of Invention:

The present invention provides an easy to use system and method for location of job opportunities and applying for same using an online connectivity protocol which is simple to use and highly efficient in terms of time consumption.

The system identifies and extracts keywords from the job postings in an accessible job database to create a keyword-targeted list that excludes common words and phrases.

24. Number of Claims : 31

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? $$; $$ 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it?:

This is already much better. So No need to improve.

PSAR 8

PSAR No. : 19BE7_160470107048_3

-Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

Keywords Used for Search : Method of image processing, Image processing, process image
 Image processing apparatus and image processing method

4. Number of Results/Hits getting : 2700

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06T II/60

7. Title of Invention : Image processing apparatus and image processing method

 8. Patent No.
 : US9240065B2

 9. Application No.
 : 14/373,995

9a. Web link of the studied patent : https://patents.google.com/patent/US9240065B2/en?oq=US9240065B2

10. Date of Filing/Application : 11/15/2012

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date : 14. First Filled Country : :

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Shinichi Yoshimura	Tokyo(JP)

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Sony Corporation	Tokyo JP

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology only can be developed using a computer and IT.

20. Specific Problem Solved/Objective of Invention:

One can extract the content from image and process image pixel by pixel.

21. Brief about Invention:

There is provided an image processing apparatus including an image processing unit which performs image processing on each of a plurality of images of the same subject having different resolutions, and an image combining unit which combines an image processing result of each of the plurality of images obtained by the image processing unit.

22. Key Learning Points:

Image processing

23. Summary of Invention:

According to the present disclosure, there is provided an image processing apparatus including an image processing unit which performs image processing on each of a plurality of images of a same subject having different resolutions, and an image combining unit which combines an image processing result of each of the plurality of images obtained by the image processing unit.

24. Number of Claims : 15

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it?:

This is already much better. So No need to improve.

PSAR 9

PSAR No. : 19BE7_160470107048_4

Part - I : PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : OCR algorithm, Camera OCR , Image processing OCR

3. Search String Used : Camera ocr with context information

4. Number of Results/Hits getting : 2500

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : OCR method for image processing

6a. IPC class of the studied patent : G06K9/20

7. Title of Invention : Camera ocr with context information

8. Patent No. : US 2013/0108115 A1

9. Application No. : 13/450,016

9a. Web link of the studied patent : https://patents.google.com/patent/US20130108115A1/en?oq=US20130108115A1

10. Date of Filing/Application : 04/18/2012

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date

14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Kyuwoong HWANG	Daejeon KR

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
QUASM Incorporated	San Diego

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology only can be developed using a computer and IT.

20. Specific Problem Solved/Objective of Invention:

Identifying a portion of the image with a graphical object

21. Brief about Invention:

Embodiments of the invention describe methods and apparatus for performing context-sensitive OCR. A device obtains an image using a camera coupled to the device. The device identifies a portion of the image comprising a graphical object. The device infers a context associated with the image and selects a group of graphical objects based on the context associated with the image.

22. Key Learning Points:

OCR Method to extract words from images

23. Summary of Invention:

Techniques are provided for performing context sensitive OCR. The techniques described herein are particu larly useful for mobile devices with limited processing power. However, application of the techniques described herein is not limited to mobile devices and may be applicable to all OCR applications. Input from various sensors including microphone, GPS, and camera, along with user input including Voice, touch, and user usage patterns are used to infer the user context and select dictionaries that are most relevant to the inferred contexts.

24. Number of Claims : 80

25. Patent Status : Published Application

26. How much this invention is related with your IDP/UDP? 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

This is already much better. So No need to improve.

• PSAR 10

PSAR No. : 19BE7_160470107048_5

-Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Employee Selection, Automatic selection, Employement

3. Search String Used : Automated system for selecting employee

4. Number of Results/Hits getting : 8020

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Computer software for automatic recruitment

6a. IPC class of the studied patent : G06Q 10/06

7. Title of Invention : ELECTRONIC EMPLOYEE SELECTION SYSTEMIS AND METHODS

 8. Patent No.
 : 2012/0078804

 9. Application No.
 : 13/243,786

9a. Web link of the studied patent : https://patents.google.com/patent/US20120078804A1/en?q=employee&q=hire&oq=employee+hire+

 10. Date of Filing/Application
 : 09/23/2011

 11. Priority Date
 : 08/03/2000

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

 13. Publication Date
 : 03/29/2012

 14. First Filled Country
 : 284

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
David J Scarborough	West Linn
Bjorn Chambless	OR (US);

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Kronos Talent Management Inc	Beaverton

18. Applicant for Patent is : Company

-Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology only can be developed using a computer and IT.

20. Specific Problem Solved/Objective of Invention:

An automated employee selection system can use a variety of techniques to provide information for assisting in the selection of employees. For example, pre-hire and post-hire information can be collected electronically and used to build an artificial intelligence-based model.

21. Brief about Invention:

The model can then be used to predict desired job performance criterion (e.g., tenure, number of accidents, sales level, or the like) for new applicants. A wide variety of features can be supported, such as electronic reporting. Pre-hire information identified as ineffective can be removed from a piece of collected pre-hire information. For example, ineffective questions can be identified and removed from a job application. New items can be added and their effectiveness tested. As a result, a system can exhibit adaptive learning and maintain or increase effectiveness even under changing conditions.

126

22. Key Learning Points:

Computer software for automatic recruitment system

23. Summary of Invention:

Large organizations can bring considerable resources to bear on the task of developing a job application. For example, a large retail chain might consult with an indus trial psychologist to study the job environment and develop a set of questions that ostensibly predict whether an individual will excel in the environment.

24. Number of Claims : 23

25. Patent Status : Other (Abandoned)

26. How much this invention is related with your IDP/UDP? $$: $$ 71 to 90%

${\bf 27.}\,{\bf Do}$ you have any idea to do anything around the said invention to improve it? :

This is already much better. So No need to improve.

• PSAR 11

PSAR No. : 19BE7_160470107054_1

Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

: https://patents.google.com/ Web link of the Database

: OCR,Character recognition algorithm,Word matching alogorithm 2. Keywords Used for Search

METHOD, DEVICE AND COMPUTER PROGRAMI PRODUCT FOR INTEGRATING CODE-BASED AND OPTICAL CHARACTER : RECOGN

3. Search String Used

4. Number of Results/Hits getting : 4000

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Character recognition algorithm

6a. IPC class of the studied patent : G06K 9/00

METHOD, DEVICE AND COMPUTER PROGRAMI PRODUCT FOR INTEGRATING CODE-BASED AND OPTICAL 7. Title of Invention

CHARACTER RECOGNITION TECHNOLOGES INTO A MOBILE VISUAL SEARCH

8. Patent No. 20080267504 9. Application No. : 11/771,556

https://patents.google.com/patent/US20080267504A1

/en?q=METHOD%2c+DEVICE+AND+COMPUTER+PROGRAMI+PRODUCT+FOR+INTEGRATING+CODE-

9a. Web link of the studied patent : BASED+AND+OPTICAL+CHARACTER+RECOGNITION+TECHNOLOGES+INTO+A+MOBILE+VISUAL+SEARCH& oq=METHOD%2c+DEVICE+AND+COMPUTER+PROGRAMI+PRODUCT+FOR+INTEGRATING+CODE-

 ${\tt BASED+AND+OPTICAL+CHARACTER+RECOGNITION+TECHNOLOGES+INTO+A+MOBILE+VISUAL+SEARCH}$

10. Date of Filing/Application : 06/29/2007 : 04/24/2007 11. Priority Date

12. Publication/Journal Number - (Issue No. of

Journal in which Patent is published)

13. Publication Date 10/30/2008

14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
C Philipp Schloter	San Francisco

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
Nokia Corporation	ALSTON & BRD LLP BANK OF AMERICA PLAZA

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is used by only computer & I.T. Users.

20. Specific Problem Solved/Objective of Invention:

A device for Switching between code-based searching, optical character recognition (OCR) searching and visual searching is provided. The device includes a media content input for receiving media content from a camera or other element of the device and transferring this media content to a Switch.

21. Brief about Invention:

Additionally, the device includes a meta-information input capable of receiving meta-information from an element of the device and transferring the meta-information to the switch. The switch is able to utilize the received media content and the meta-information to select and/or switch between a visual search algorithm, an OCR algorithm, and a code-based algorithm.

22. Key Learning Points:

Optical Chararacter recognition algorithm used for character processing

23. Summary of Invention:

Systems, methods, devices and computer program products of the exemplary embodiments of the present invention relate to designs that enable combining a codebased searching system, and an OCR searching system with a visual searching system to form a single unified system. These designs include but are not limited to context-based, detection-based, visualization-based, user-input based, statistical processing based and tag-based designs

24. Number of Claims : 10

25. Patent Status : Other (Application status is Abandoned)

26. How much this invention is related with your IDP/UDP? $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$

27. Do you have any idea to do anything around the said invention to improve it? :

This is already a much better solution, so there is no scope of improvement.

• PSAR 12

PSAR No. : 19BE7_160470107054_2

Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Documet Processing, Image Scanning, Documet Processing

3. Search String Used : document processing

4. Number of Results/Hits getting : 3399

-Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA-

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Documet Processing System

6a. IPC class of the studied patent : G06K 9/00

7. Title of Invention : DOCUMENT PROCESSING SYSTEM USING FULL IMAGE SCANNING

 8. Patent No.
 :
 8,396.278

 9. Application No.
 :
 13/166,9 978

9a. Web link of the studied patent https://patents.google.com/patent/US8396278B2/en?q=document&q=processing&

oq=document+processing

10. Date of Filing/Application : 23/06/2011

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date

14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
John E Jones	Winnetka

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
CumminsAllison Corp	Mt Prospect

18. Applicant for Patent is : Company

-Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is only developed by computer and IT users.

20. Specific Problem Solved/Objective of Invention:

A system for tracking currency bills comprises a currency scanning device. The scanning device includes a sensor that retrieves currency identification characteristic information of (51) Int. CI. each bill processed.

21. Brief about Invention:

The currency identification characteristic information permits the unique identification of each bill processed. The system further comprises a customer identification means and means for associating each processed bill Field of Classification Search with the customer depositing the bill. Means for identifyingSee application file for complete search history, the customer (or customer account) associated with a particular processed bill after the deposit transaction has been completed is also included in the system.

22. Key Learning Points:

Document Processing with image scanning

23. Summary of Invention:

According to one embodiment, a system for tracking currency bills comprising a currency Scanning device is provided. The scanning device includes a sensor that retrieves currency identification characteristic information of each bill processed. The currency identification characteristic information permits the unique identification of each bill processed. The system further comprises a customer identification means and means for associating each processed bill with the customer depositing the bill. Means for identifying the customer (or customer account) associated with a particular processed bill after the deposit transaction has been completed is also included in the system.

24. Number of Claims : 25

25. Patent Status : Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$

27. Do you have any idea to do anything around the said invention to improve it?:

This is already a much better solution, so there is no scope of improvement.

• **PSAR 13**

PSAR No. : 19BE7_160470107054_3

Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : NLP,Content Recommender,Character recognition

3. Search String Used : NLP
4. Number of Results/Hits getting : 3459

-Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : NLP
6a. IPC class of the studied patent : G06F 17/30

7. Title of Invention : NLP-BASED CONTENT RECOMMENDER

 8. Patent No.
 : 9,471,670

 9. Application No.
 : 14/181,591

9a. Web link of the studied patent : https://patents.google.com/patent/US9471670B2/en?q=NLP&oq=NLP

10. Date of Filing/Application : 14/02/2014

11. Priority Date

Publication/Journal Number - (Issue No. of Journal in which Patent is published)
 Publication Date

14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Neil Roseman	Seattle
Korina J Stark	WA (US)

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
veve III LLe	Seattle

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is used by only computer & I.T. Users.

20. Specific Problem Solved/Objective of Invention:

Methods, techniques, and systems for using natural language processing to recommend related content to an associated text segment or document.

21. Brief about Invention:

Example embodiments provide an NLP-based content recommender ("NCR") which uses NLP-based search techniques, potentially in conjunction with a context or other related information, to locate and provide content related to entities that are recognized in the associated material. NCRs may be embedded as widgets, for example on Web pages to assist users in their perusal and search for information, provided by means of browser plug-ins or other application plug-ins, provided in libraries or in standalone environments, or otherwise integrated into other code, programs, or devices. This abstract is provided to comply with rules requiring an abstract, and it is submitted with the intention that it will not be used to interpret or limit the scope or meaning of the claims.

22. Key Learning Points:

NLP, NLP based content recommender

23. Summary of Invention:

The present disclosure relates to methods, techniques, and systems for presenting content using natural language processing and, in particular, to methods, techniques, and systems for recognizing named entities using natural language processing and presenting content related thereto.

24. Number of Claims : 19

25. Patent Status Granted Patent & In-force Patent

26. How much this invention is related with your IDP/UDP? : 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

This is already a much better solution, so there is no scope of improvement.

• PSAR 14

: 19BE7_160470107054_4

Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used : Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : OCR, Character recognition algorithm, Optical character recognition

3. Search String Used : LANGUAGE-INDEPENDENT AND SEGMENTATION-FREE OPTICAL CHARACTER RECOGNITION SYSTEMAND METHOD

4. Number of Results/Hits getting : 2699

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Character recognition

6a. IPC class of the studied patent ; G06K 9/48;

LANGUAGE-INDEPENDENT AND SEGMENTATION-FREE OPTICAL CHARACTER RECOGNITION : SYSTEMAND METHOD 7. Title of Invention

8. Patent No. 5,933,525 9. Application No. 08/630,162

https://patents.google.com/patent/US5933525A/en?q=LANGUAGE-

INDEPENDENT+AND+SEGMENTATION-

9a. Web link of the studied patent : FREE+OPTICAL+CHARACTER+RECOGNITION+SYSTEMAND+METHOD&oq=LANGUAGE-

INDEPENDENT+AND+SEGMENTATION-

FREE+OPTICAL+CHARACTER+RECOGNITION+SYSTEMAND+METHOD

10. Date of Filing/Application 10/04/1996

11. Priority Date

12. Publication/Journal Number - (Issue No. of Journal in

which Patent is published)

13. Publication Date 14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
John I Makhoul	Winchester
Richard M Schwartz	Sudbury

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
BBN Corporation	Cambridge

18. Applicant for Patent is : Company

Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is used by only computer & I.T. Users.

20. Specific Problem Solved/Objective of Invention:

A language-independent and Segment free OCR system and method comprises a unique feature extraction approach which represents two dimensional data relating to OCR as one independent variable (specifically the position within a line of text in the direction of the line) so that the same CSR technology based on HMMs can be adapted in a straight forward manner to recognize optical characters. After a line finding Stage, followed by a simple feature-extraction Stage, the System can utilize a commercially available CSR system, with little or no modification, to perform the recognition of text by and training of the System.

21. Brief about Invention:

The whole system, including the feature extraction, training, and recognition components, are designed to be independent of the Script or language of the text being recognized. The language-dependent parts of the System are confined to the lexicon and training data. Furthermore, the method of recognition does not require presegmentation of the data at the character and/or word levels, neither for training nor for recognition.

22. Key Learning Points:

Optical Character recognition algorithm used for character processing

23. Summary of Invention:

A language-independent OCR system and method comprises a unique feature extraction approach which represents two dimensional data relating to OCR as one independent variable (specifically, the position within and in the same direction of a line of text) so that the same CSR technology based on HMMs can be adapted in a straightforward manner to recognize optical characters.

24. Number of Claims : 36

25. Patent Status : Expired Patent

26. How much this invention is related with your IDP/UDP? $\,\cdot\,$ < 70 %

27. Do you have any idea to do anything around the said invention to improve it? :

This is already a much better solution, so there is no scope of improvement.

• **PSAR 15**

PSAR No. : 19BE7_160470107054_5

Part - I: PATENT SEARCH TECHNIQUE USED

1. Patent Search Database Used Google Patents

Web link of the Database : https://patents.google.com/

2. Keywords Used for Search : Online recruitment system, Online assessment system, recruitment system

3. Search String Used : online recruitement management system

4. Number of Results/Hits getting : 1355

Part - II: BASIC DATA OF PATENTED INVENTION/BIBLIOGRAPHIC DATA

5. Category/Field of Invention

6. Invention is Related to/Class of Invention : Online recruitment system

6a. IPC class of the studied patent : G06Q 10/06

7. Title of Invention : ONLINE RECRUITMENT SYSTEM AND METHOD

 8. Patent No.
 : 20120185402

 9. Application No.
 : 13/497,165

9a. Web link of the studied patent : https://patents.google.com/patent/US20120185402A1/en?q=online&q=recruitement&

q=management&q=system&oq=online+recruitement+management+system

10. Date of Filing/Application : 24/09/2010

11. Priority Date

 ${\bf 12.\,Publication/Journal\,Number-(Issue\,No.\,of\,Journal\,in}$

which Patent is published)

13. Publication Date

14. First Filled Country

15. Also Published as

We do not find any published data.

16. Inventor

Name of Inventor	Address/City/Country of Inventor
Stephane Lajoie	Alma (CA)

17. Applicant

Name of Applicant/Assignee	Address/City/Country of Applicant
IPAXIO SENC	Quebec (CA)

18. Applicant for Patent is : Company

-Part - III: TECHNICAL PART OF PATENTED INVENTION

19. Limitation of Prior Technology/Art:

This technology is used by only computer & I.T. Users.

20. Specific Problem Solved/Objective of Invention:

The system and method allow finding candidates for job offers using a reward scheme, in which members of the public(21) Appl. No.: 13/497,165 provide contact information on one or more potential candidates for available job offers.

21. Brief about Invention:

Considering that most employment opportunities are communicated by acquaintances, available job offers are presented as "wanted notices', with an attached reward to encourage members of the public to participate in an employee search for filling one or more available job positions. These participants become "third-party submitters' and only need to provide contact information required for the system to send an invitation message to the corresponding potential candidate.

22. Key Learning Points:

Online recruitment system used for an organization

23. Summary of Invention:

Generally stated, the proposed concept allows finding candidates for job offers using a reward scheme, in which members of the public provide contact information on one or more potential candidates for available job offers. Considering that most employment opportunities are communicated by acquaintances, the present concept proposes to convert available job offers into "wanted notices", with an attached reward to encourage members of the public to participate in an employee search for filling one or more available job positions.

24. Number of Claims : 25

25. Patent Status : Other (Application status is Abandoned)

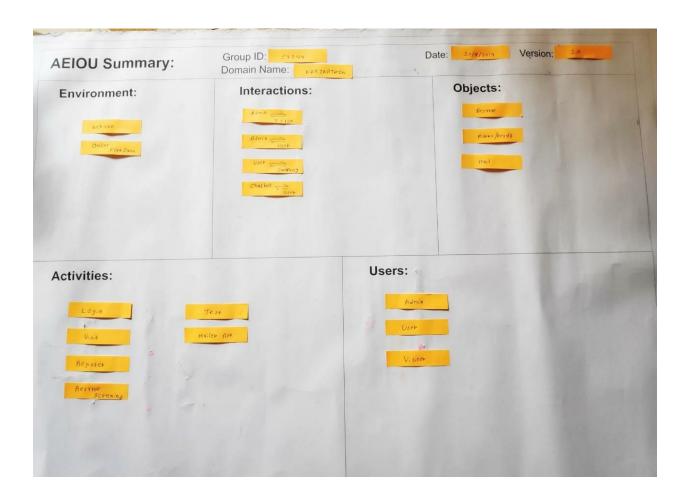
26. How much this invention is related with your IDP/UDP? : 71 to 90%

27. Do you have any idea to do anything around the said invention to improve it? :

This is already a much better solution, so there is no scope of improvement.

3. Design engineering canvas

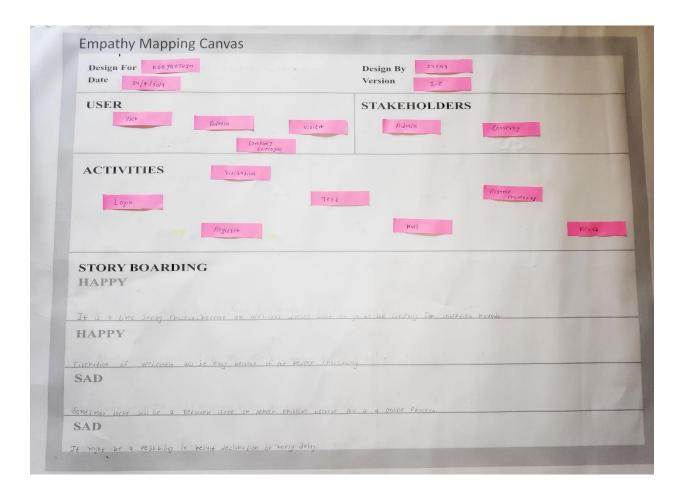
AEIOU canvas



In AEIOU canvas we identify our

- Activities
- Environment
- Interactions
- Objects
- Users

• Empathy mapping canvas



In Empathy mapping canvas we identify our

- Activities
- Users
- Stockholders
- Story boarding

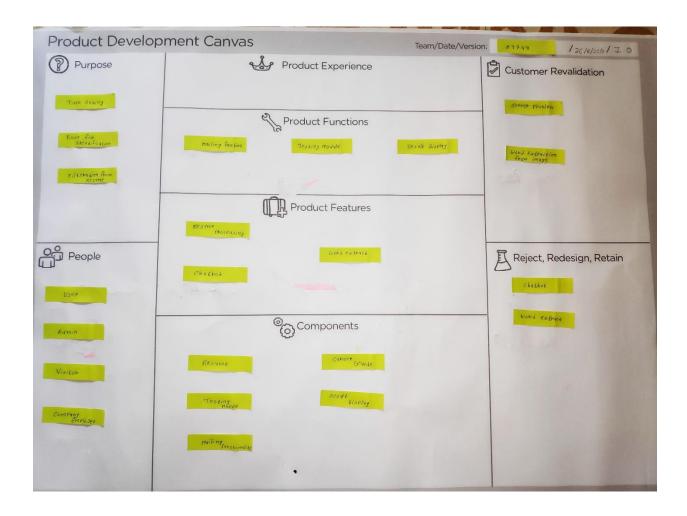
• Ideation canvas



In Ideation canvas we identify our

- Activities
- People
- Props/Possible solutions
- Situation/Context/Location

• Product development canvas



In Product development canvas we identify our

- Purpose
- People
- Components
- Product Experience
- Product Features
- Product Functions
- Customer revalidation
- Reject/ Redesign / Retain