### AppraiSyst – An Appraisal System

Kajol Assudani<sup>1</sup>, Nilesh Ramchandani<sup>2</sup>, Nisha Balani<sup>3.</sup>

<sup>1</sup>(Department of Computer Science and Engineering, Jhulelal Institute of Technology,Lonara, Nagpur, India) <sup>2</sup>(Department of Computer Science and Engineering, Jhulelal Institute of Technology,Lonara, Nagpur, India) <sup>3</sup>(Department of Computer Science and Engineering, Jhulelal Institute of Technology,Lonara, Nagpur, India) Corresponding Author: Kajol Assudani

Abstract: In the corporate world people have different qualities and attributes to show for which there is a need of assessment. Employees are needed to be given the due credit for how they perform at the site of the job[2]. Older methods include a paper consisting of the employee credentials along with a fixed set of qualities. This becomes the basis on which the higher authorities get to take the decisions on a particular employee. As the medium of on paper appraisal becomes obsolete our software provides a portal to appraise an employee with a dynamic system to appraise and assess them in a fairer and an advanced manner [5]. AppraiSyst is basically a web app which can inherently be used by firms and teams to assess the employees on their own scale with enough dynamic components to suit any corporate work environment.

Keywords: Appraisal, Web Application, Corporate.

#### I. Introduction

As we as a whole know, there is an extraordinary challenge in the professional workplace between the partners and everybody wishes to be the prime most contender for the examination. Be that as it may, the examinations or the advancements are credited are getting to be one-sided. The Increments are given on their own inclinations and not on how they truly work or play out their tasks[1]. This has turned into a noteworthy issue as the meriting identities are skipped which limits their certainty and corrupts their enthusiasm to perform well. So to keep away from this prejudice the organization head can discover the rating of the worker that is being given by the representative's associate and as per that rating the examination can be credited to their records. This instrument can make the earth for the partners to pass judgment on themselves just as give the rating to other people. This instrument will likewise not uncover the personality of any of the associate with the goal that the connections can be kept up and the execution of the worker will likewise be noticeable to the organization head.

#### What is AppraiSyst?

In the corporate world, competition is always there to be on par with your colleagues and be the prime most candidate for a promotional opportunity. In most of the corporate company's promotions are given or credited on the basis of personal preferences and not really on how the employee has been performing the job. This is a major problem as the deserving candidate is skipped and unjust promotions take place. Our simple tool creates an environment for the colleagues themselves to judge the deserving candidate. This further motivates the fact that collegial relationships must be maintained along with performance on the job.

#### **Dynamic Components**

Dynamic attribute selection in the admin panel makes it easier to be used in any type work environment. This means that this software is not only suitable for corporate environments but for other organisation like schools and colleges.

#### II. Related Work

Very Basic Appraisal tools are currently being used in the corporate work places as in the form of paper in physical or electronic forms, with no tool for validating the credibility of the reviews given. The appraisals done are vulnerable to tampering and malicious attacks. Primitive methods are used to assess employee and produce statistical data [6]. These methods include providing paper sheets containing forms and table for every employee to fill and submit. Electronic appraisals are implemented inside a firm with their own

International Conference on Innovations in Engineering, Technology, Science & Management – 67 | Page 2019 (ICI-ETSM-2019)

standard. This software takes a more generalized approach of an appraisal system which is flexible for any work environment [3].

From **Public Health Resource Unit (2006),** we have come across that the performance of the employees in any working sector is never recognized. For making the performance of the employee transparent at least to the higher authorities we need the appraisal system in every corporate world for the betterment of the company as well as the employee. As performance is hidden maximum of the employees feel unrecognized ad they don't get the appreciation that they deserve. Even the deserving candidate is neglected. And due to this avoidance employee don't feel to work in an environment where his/her efforts are not valuable or come in someone's count or are appreciated. They then wish to quit the job real soon [1].

So to make someone's effort valuable, we need a system that helps them to get appreciated and also appreciate others according to their working. This way of appreciating others is not at all transparent to each other's review. Appraisals should be regular, this makes the urge of working even more and also gives confidence to the employee to work with good will and also makes an employee improve themselves.

As indicated by Anindya Saha and Sougata Majumder (2017) International Research Journal of Human Resources and Social Science, Impact of Information on Performance Appraisal, Vol.4, 81-89, there is tremendous challenge in the corporate world every part of the organization ought to be in the best condition. Every angle has its own specialization to chip away at. One of these perspective is representative administration. Each corporate firm has a workforce to oversee which may comprise of different sort of people. Each individual in the workforce may have an alternate quality to offer. The execution of the workers is fundamental for the development of the association. One of the central point that choose how an organization performs is the climate in which the representative in the organization work. On the off chance that a worker anytime of time feels low or disengaged from what he/she is doing, at that point it might prompt underperformance from the representative This prompts an immediate effect to the advancement of the organization. The organization might be unaware because of its little scale yet on the off chance that various representatives fail to meet expectations it might have wrecking outcomes.

Deepa E., Dr. Palaniswamy R. and Dr. Kuppusamy S, (2014) Effect of Performance Appraisal System in Organizational Commitment, Job Satisfaction and Productivity, Contemporary Management ResearchVol.8, Issue No. 1, 72 - 82. To just avoid this problem, firms are constantly incorporating methods to know how well an employee working in the company is doing. Specialized mechanisms are being developed to assess how a particular employee is performing. The analysis done reveals some interesting figures and statistics about employee behavior and their characteristics. These statistics help take decision about various activities regarding employee matters. Promotions for example, require to rigorous assessment of the employee on grounds of various qualities. The fact that an employee really deserves a promotion is a matter of extreme importance. Because, as a person working in a particular position is being promoted to a higher position means that the upcoming responsibilities will be more challenging and crucial for company progress. Thorough assessment of employees is necessary before any action taken. Other activities like employee happiness index calculation could be done using such systems. The comfortability of an employee decides how an employee is going to perform in the position of the job. If an employee is feeling that a particular job position is not suitable for him/her then such problem need to be detected as soon as possible[4]. Measures need to be taken to preserve human resource and talents are not wasted on improper works. Self-assessment is a good way to represent personal issues in a documented way. Proper self-assessment can be scrutinized by HRs to know the exact problems of the team members under leadership. While these components of employee management look straight forward they should be carried out in a systematic and planned way.

## Mishra, A; and Akhman I, (2010) Information Technology in Human Resource Management: An Empirical Assessment, Public Personnel Management, Vol. 39, No.3, 271-290.

A system that is implemented for the sole purpose of appraising employees to take employee related decisions is called as an appraisal system. Appraisal systems come in different forms and features. The most primitive once include passing an appraisal sheet to each employee personally

Hussain Z., Wallace J., Cornelius N. E. (2007) the Use and Impact of Human Resource Information Systems on Human Resource Management Professionals, Information & Management, 44, 74-89. These sheets need to be filled by the employees as per instruction and submitted. The system mentioned could be analogous to a ballot system where several people give some information to be processed on a particular matter [10]. The paper sheets are then collected and scrutinized one by one by a specialized committee [11].

International Conference on Innovations in Engineering, Technology, Science & Management – 68 | Page 2019 (ICI-ETSM-2019)

Mamoudou, Joshi. (2014) Impact of Information Technology in Human Resources Management, Global Journal of Business Management and Information Technology, Vol. 4, No.1, 33-41. The advisory group may comprise of group pioneers, HRs, Managers, and so on. A few associations make a leading group of individuals only for human asset the executives which do different exercises including evaluation framework the board. The procedure at long last finishes after the assigned specialist peruses and dissects the last sheet and settles on choices as indicated by the outcome. This kind of a physical framework is a long and dreary procedure which devours time and assets than it should. Utilization of time and assets in appropriate spots chooses how productively an association is running. Such moderate procedure could be supplanted by an elective execution of the framework that actualizes the working of the examination framework in an electronic way.

# Mukherjee, A; Bhattacharya, S; and Bera, R, (2014) Role of Information Technology in Human Resource Management of SME: A Study on the use of Applicant Tracking System, IBMRD's Journal of Management and Research, Vol. 3 No.1, 1-22.

IT has blasted in recent decades in way that was never anticipated. It has given arrangements of issue which were accepted unsolvable previously. Mechanization of errands has made it simpler for people to give more weight on research than execution. Robotization of evaluation framework is one of the different arrangements IT has provided [7]. A mechanized examination framework is unquestionably more effective and dependable than the crude ticket framework type ones.

Here each procedure is carried on a PC stage running from worker enlistments to making visual portrayal of insights. Diverse modules of the evaluation framework run from Employee enlistment modules to Graph generators which help in result investigation Queue the board could be actualized to make a motor that is self-subordinate. Structures having different traits are made with various fields to evaluate an employee[8]. Databases ought to be kept up for information associations which empower quick access and recovery. As PCs are obviously better in calculations and memory the executives the procedure is accelerated ten folds. This quicker strategy for evaluation takes care of business betterly absent much human asset squandered.

#### III. Problem Statement

- Providing a fair ground for promotional opportunities in a work environment by providing equal rights to elect a candidate in a promotion program.
- Self-assessment based on ratings and reviews.
- Rankings provided by their reviews.

#### IV. Proposed Plan

After the survey, we found that some components of earlier systems are too static to be made to work in different work environment. The components include of limited attributes to rate on. Sometimes a company may need to judge people on different basis depending on the type of company. For example, a software company would like to get data about technical ability of their employee on a higher priority than the communication skills of employees. Such appraisals cannot be provided by a system where attribute are static. Our tool provides a way to customize the list of attributes on the go. Mostly this privilege would be given to the admin of the system.

The below flow diagram summarizes the flow of the engine of the application. A login windows is provided with proper redirection for employees and the admin. Admin has four basic jobs to do namely, 1. Be the Employee Master. 2. Handle statistics 3. Manage employee list. 4. Employee registration. Employees are supposed to fill the respective forms and submit them.

Jhulelal Institute of Technology (JIT) is governed by Samridhi Sarwajanik Charitable Trust (SSCT), Koradi Road, Village Lonara, Nagpur-441111.



Fig: Flow diagram of the system

V. Overall Architecture



The employee under scrutiny is appraised by multiple people in the firm consisting of different posts. They can be colleagues, Team leaders, Head representatives and maybe the CEO. The results are stored in a database and further used as an input to graphics generated later to visualize results. The results are forwarded to the highest authorities who then take decision.



Fig: Appraisal Hierarchy.

The Data flow of the system is represented above. The data is passed down the hierarchy beginning from the highest designation. The person at the highest level of the hierarchy monitors all the activities of the lower hierarchy and also looks after the appraisals that are done and also manages the queues for the employees.

International Conference on Innovations in Engineering, Technology, Science & Management – 70 | Page 2019 (ICI-ETSM-2019)

Employees can appraise to their colleagues and to employees that are in the lower hierarchy from the one who is appraising.

#### Back end database:

#### VII. Implementation

He back end data base is coded in SQL. Every terminal in the system is comprised of bunch of tables which keep track of data. Cities and countries have been imported from predefined libraries which are used in the registration phase of a new employee. Employee list is a stringent list of employees which cannot be altered as it consists of all the records of employees from the beginning. It has been made sure that no alteration is possible to this list. The tables have been normalized better compatibility. Normalization enables further addition of new tables so as to extend the system. A mysql server needs to be ran on the system to setup the environment for working. To create and use the database we have used a local host using xampp. The xampp version required for this is 5.0.0 and above.

The second state of the se	.*.					- a x	
e + C @ koahotytany	admitth, mathemptioner 1th	Broppsid			6,	R 🖬 😰 I	
E res 1 Dooman 👌 walk	dealer in Stat. 🖪 Neter	ana Charan Di Casa Anno					
phpMyAdmin	- Cienet 17/001-01	Teleforen application				Ø =	
	2 Stucture III 22L	🛝 Search 😭 Query 🚔 Export 🚔 Import 🎤 Operations	+1 Produg	en: 🥼 Routres	S. Erents	T More	
east Favoles							
84	Fillers	Films					
approximat	Containing the work						
New	This is	Action Row	9.42 Total	Colletton	Size Orei	hast.	
Nor Approved yourses	U approval_rames	🛊 🛄 Browse 🖟 Oracture 🕫 Search F Insent 🔮 Empty 🥥 Deap	\$ insuble	Mert medal or	10 KUP		
· > appraisal permissions	apprainal_permitations	A Diener je binchare je bieret je neuet mit trept O Den	10 Head20	10111_000000_00	14.114	-	
+ > courses	U appraisal_scores	🛔 🗐 Browne (# Structure 14 Search 🕌 Insert 👹 Empty 😅 Dear	4 inviC6	MIT wedsh ti	ia nik		
	O others	🚖    Denne je Ditucture je Beauts je reant 👹 Drast 🥥 Dras	IN MyISAN	latert_seeking_st	3.19.938		
+ relacation_masters	C countries	🛊 🔄 Browner 🙀 Brockurer 💘 Bearch 🙀 Insent 👾 Einphy 🥥 Disso	U UNADB	Mint, swedish, ut	LE VER		
<ul> <li>i i foes</li> <li>i i foe, potissions</li> <li>i i soor, befails</li> </ul>	C education_matters	w   Brown je Dischare in Smarth Be mant M Ergely @ Deur	5.10/008	lant, mediat, it	14 738		
	C roles	🛊 🖂 Browne (w) Structure 👒 Smarch (je insert 🔮 Brasty 🥥 Disa	) inniO8	latert_invedsh_ci	44.1128		
ri 🖉 skifts	O role permission	w if from a finction a form if room if trate o for	III Myrdaw	MINT_INVERSE.	1.11.11.0	-	
· · · ·	E score_Ortaits	🛊 🔄 Browie 🖌 Structure 🕸 Search 🕌 Innet 🐨 Erspty 🥥 Deur	W innibit	isteri swedist_ci	10.11.0		
warmation_scheme	C skills	w There > Smaller + Search   most # Ervy @ Dear	10 10 MGB	intriceventificer	10.106		
🔄 eyez	II states	🛓 🔄 Browse (jej Brockare 🕫 Bearth 🚽 Engely 🥥 Drus	in NyiSAM	latert_swedist_st	7,9 118		
performance scheme	O users	🙀 📋 Brower je Bliucture 👒 Boardt Beitnant 👹 Engly 🥥 Data	BUMIE III	laint, seekint, o	HINE		
			and house the	late1_awedish_ci	total a state		
a phyripalites.	12 tables	Sun	- tes . HincDB	many sweater a	P and P have		

Figure 7.3: Back end database snapshot.

#### **Dynamic attribute selector:**

One of the features of the system is the ability to add new custom attributes on the go. The functionality is inspired from the lack of ability of the previously used system to add new attributes to the list of existing ones. There's an 'add skill' button provided which takes you to the window where a new skill is to be entered into the text box. Once entered the add button cascades the newly entered skill to the end of the list. Validation is provided to check whether the skill has been added already. Furthermore, already added skill can be renamed to suite the situation. Addition of a skill here creates a new row in the sql with appropriate attributes. Resetting button clears the list which enables to create a new list from ground up.

International Conference on Innovations in Engineering, Technology, Science & Management – 71 | Page 2019 (ICI-ETSM-2019)

D industry	• • • • • • •	- 8 *
	period device any period of the second	n e 🖬 😜 i
III Appa 🤱 Therefords 🗋 🤘	encheterenter Miller Christian	
Appraisal	Search Here	Autset
A Viecone.	Girll Rene	Anter
Admin Admin	Constrainty	<b>20</b>
n nore	Guilty if This	
C Marter	There thick Anothesis Anthy	<b>2 2</b>
- Million	Induitie & smathdy	
· Traine Int	diase Control	
<ul> <li>Apprenie Line</li> </ul>	Task Execution	00
<ul> <li>Appressi Dore Report</li> </ul>	Presentation Dati	
🛃 Erspisjons Eleitates	Atture	
🖋 Appraisal Hot Dans Repo		
		Pressure Final Accivence Windows
And the local distances of	C 20119-001 mil/101 result web	Approximiting Systems by Tartmaruh Sociliana
0	ë o e 🖬 🌰 🔜 🧭	- Mail 19

Figure 7.4: Attribute selector terminal.

#### FRONT END: Appraisal form to be filled by employee

This page is the portal where the employee actually rates other employees according to his/her experience. The employee being appraised has his/her name displayed on the top to remind the person appraising them. Date and time on which the form was received is displayed on top right. The ratings are broken into 5 categories,

- 1. Unacceptable
- 2. Needs improvement
- 3. Satisfactory
- 4. Outstanding
- 5. Excellent

The ratings are color coded red being the worst and green being the best. The spectrum in between is used to denote remaining ratings. This information is displayed to intuit the appraiser about the ratings. Below that a table is created with three columns namely serial number, particular skill and rating of that skill. Rating of the skill which is the third column is provided with a drop-down in each row from which five of the ratings could be selected. Once done the form could be submitted or saved for further alteration. A timer of an hour is imparted before the second appraisal form in the queue could be filled.

Jhulelal Institute of Technology (JIT) is governed by Samridhi Sarwajanik Charitable Trust (SSCT), Koradi Road, Village Lonara, Nagpur-441111.

	* # House	*7.*				12) C #1
	and a standard second				5.8	. 0
	and the second s					00
Appraisal		Ap	praisal Form			-
n	Automation	Mad Systems		204	pressure of the second second	
	Anglia					
<b>MAR</b>	Viterrapiers, Sec. 9.					
	E Santiabia (gennais) in	dawih filik in theil the second provide a line				
Approve Dates	<ol> <li>Subscripting Property -</li> <li>Reported Susceptible as</li> </ol>	Annual Annual (1998)				
	analysis and the second	nami				
	PERFORMANCE CATEGO 1 Toll of the asymptotic of					
	the second se		Paratest			
	Toll of the asymptotic of	alare.	Para Anton Select Parag	_	_	
	The states	alaine.			-	
	Tell of the asymptotic of the second se	lane Lankets	Select Trying		-	
	The other appropriate of the second s	dalah (Janharita (Satita or yan	Select Takey			
	1754 of 16 appropriate of 1754 of 16 appropriate of 1754 of 18 appropriate of 1754 of	nteres ( (anteres) ( (anteres) ( Carthy of your ( Same and an Speed attri) ( Steam of a Speed attri)	Benes Rying Benes Rying Domit Rying Benes Rying		Al-do El de	
	1754 of 16 gamping of 6	ninn Terminal (Salisty yes Salisty yes Salisty yes	Sees Takey Sees Takey Sees Takey		Alvela Brider Granda La	

Figure 7.4: Appraisal form Terminal.

#### **User Interface:**

Interface of our system consist of employee or admin login where there is a login button on which after clicking it directs to the respective module. The click on the button will only redirect to the page only if it has correct credentials.

Balanaar +	- 0 ×
e + 0 0 ledencerer	4 # # O () >
I an f indui 3 detaures. If De Brannerlin, 3 in the	2
Appraisal System Login text	
LOOR	Antonio Meninge
• O	

#### Figure 7.5: Login Page UI.

The login page is a basic two field page consisting of username and password. As we know that the system has two major bifurcation namely the admin part and employee part. Everyone has a unique username password combination.

When admin enters his/her credentials, he/she is directly directed to the admin panel. When the validation encounters employee username-password combination, it redirects them to the employee terminal. The forget password button is provided in case if the user forgets their credentials. A mail service will be used to send a password recovery link so that user can retrieve their passwords. The password length has been validated to be over 8 characters long for obvious security concerns. Passwords are encrypted by default php means and stored in the database in an encrypted form.

#### VIII. Conclusion

► This tool provides a simplified approach for assessing an employee based on reviews and scores. Appraising a person based on categorized marking rather than personal opinions is much better and fair. This tool is abstracted as well as transparent at a good enough level.

International Conference on Innovations in Engineering, Technology, Science & Management – 73 | Page 2019 (ICI-ETSM-2019)

- Calculated performance ranking makes it easier for the manager to decide the figures.
- Making it more and more feasible for the current work process of corporate environment.
- Adding more features for the project to work as a social network for the employee group.
- We are limiting it to single platforms and we have plans to update it to android platform.

#### References

- Mr. Anindya Saha, Mr. Sougata Majumder. 2017 International Research Journal of Human Resources and Social Science, Impact of Information on Performance Appraisal, Vol.4, 81-89
- [2]. Mrs.Deepa E., Dr.Palaniswamy R., Dr.Kuppusamy S. 2014 Effect of Performance Appraisal System in Organizational Commitment, Job Satisfaction and Productivity, Contemporary Management Research Vol.8, Issue No. 1, 72 - 82.
- [3]. Dr.Selvarasu A., 2014, A Study of Impact on Performance Appraisal on Employee's Engagement in an Organization, International Journal of Managerial Studies and Research (IJMSR) Volume 2, Issue 11, 10 22.
- [4]. Mwema Nancy Wairimu and Dr. Gachunga Hazel Gachoka, 2014, The influence of performance appraisal on employee productivity in organizations: a case study of selected who offices in east Africa, International Journal of Social Sciences and Entrepreneurship Vol.1, Issue 11, 1-13.
- [5]. Vohra, Shrivastava, e.l. 2015, Impact of Information and Communication Technology in HRM, International Journal of Computer Science and Information Technology Research, 511-516
- [6]. Mamoudou, Joshi. 2014, Impact of Information Technology in Human Resources Management, Global Journal of Business Management and Information Technology, Vol. 4, No.1, 33-41
- [7]. Mishra, A; and Akhman I, 2010, Information Technology in Human Resource Management: An Empirical Assessment, Public Personnel Management, Vol. 39, No.3, 271-290
- [8]. 4. Mukherjee, A; Bhattacharya, S; and Bera, R, 2014, Role of Information Technology in Human Resource Management of SME: A Study on the use of Applicant Tracking System, IBMRD's Journal of Management and Research, Vol. 3 No.1, 1-22
- [9]. Miller, J; and Cardy, R, 2014 Technology and Managing People: Keeping the "Human" in Human Resources, Journal of Labor Research, Vol.XXI, No.3, 447-461
- [10]. Bernik, M., Florjancic, J., Crnigoj, D. and Bernik, I. (2007) Using Information Technology for Human Resource Management Decisions, Proceedings of the 8th WSEAS Int. Conference on Mathematics and Computers in Business and Economics, Vancouver, Canada, June 19-21, 130-133.
- [11]. Hussain Z., Wallace J., Cornelius N. E. (2007), The Use and Impact of Human Resource Information Systems on Human Resource Management Professionals, Information & Management, 44, 74-89

Road, Village Lonara, Nagpur-441111.