Intelligent Framework for Task Maintenance and Appraisal

Selvakumar G, Deepthi R, Dinesh kumaar K, Harini V, Kosuri Nikhita

Abstract: To provide an application that would monitor task status and to produce a report for each progress. Designating the number of tasks to every employee based on the project list while in the meantime, to screen the status of every working task and to provide the task report for the completed task. Using the Django framework monitoring the completion time( in hours) of each individual task and by viewing the media uploaded report will be generated. By this report, we will be able to predict each and individual employee’s working skills and efficiency, with this we will be able to foresee what sort of undertaking does the specific worker can complete inside cutoff time. For each Information Technology based organization this framework ought to be obligatory in light of the fact that it is valuable during the examination of the organization. For the culmination of the task, it requires more noteworthy the ability to do it well. More prominent proficiency requires lesser time and a high ability to finish the errand.

Keywords: Task designating, Priority task, Completed task viability.

I. INTRODUCTION

The content of this paper is based on dealing with the daily, weekly and month to month tasks in an organization and ascertaining the proficiency of the worker for the finished task, where these are finished by utilizing the Django structure. This Django web structure is one of the exceptional new quickly developing innovations, where it depends on python which is itself an incredible language. These days This Python-based Django structure is said to be one of the most developed web systems for python. Where its plan controls for the most part center broadly around decreasing web application advancement time. One of the essential purposes behind organizations to present this online task management to the executives and assessment is to grow up their association in the most straightforward manner and to continue following the status of each worker. In cases like where a few organizations figure they need more time to talk about the tasks to every representative, so likely they want to keep it open on their program with the goal that they can see the status and create the report for each finished task One of the key highlights is the capacity to share progressing project data and dependent on that task will be made and dispensed. Productivity characterizes the degree of execution where it is characterized by a minimal measure of time as a contribution to accomplish the most elevated measure of progress yield. Each project includes a progression of tasks, exercises, individuals, and cutoff times. Where it doesn't make a difference huge or little tasks where each project ought to be finished inside time. The ideal finish of the project relies upon the execution plan and the request in which the tasks are satisfied Where this proficiency primarily demands to lessen the number of superfluous hours. Task the executives and execution assessment which clarifies about dealing with the projects and computing the productivity of the finished tasks through its life cycle. Where this sort of framework causes each worker to accomplish their objective inside the evaluated time. It, for the most part, centers around getting the ideal individual for the errand, when you know about their accessibility however when you don't know about their accessibility at that point planning the project will prompt deficiency. Generally, the task the board is said to be a significant one among the officials where it encourages them to turn out to be progressively proficient and gainful in their work. In an organization, there would be any number of representatives so knowing each worker's proficiency for their task is a vital one. We can make tasks and dole out projects with the online tasks of the executives, With this online errand the board framework dealing with the project and task turns out to be a lot simpler. This framework would follow the standard of "Getting things on time with more prominent efficiency". Lesser the time they take then more noteworthy the proficiency will be produced to the worker with appreciation.

II. LITERATURE SURVEY

A. Intelligent Support for Task Management

Shrewd task the board devices and canny capacities that can cause the project the board to have gotten extensive consideration in ongoing writing. While there are two significant center regions they are a task-driven association of reports and different assets, and the utilization of clever individual collaborators to aid task fulfillment. When seeing this examination gives knowledge into the opportunities for the task the executives instruments offer progressively significant help for our projects, empowering increasingly far-reaching appropriation. Empowering movement or task-driven association of assets is a significant wise application pertinent to task the executives. A few frameworks supporting project-driven associations require manual contribution, for instance, Activity Explorer (Geyer et al., 2006) and GroupBar (Czerwinski et al., 2004). Frameworks, for example, UMEA (Kaptelinin, 2003), Kimura (MacIntyre et al., 2001), TaskTracer (Dragunov et al., 2005), CAAD (Rattenbury and Canny, 2007) and Ivan (Pedersen and McDonald, 2001).
Intelligent Framework for Task Maintenance and Appraisal

2008) be that as it may, consequently construct and keep up connections between records with changing degrees of client inclusion. CAAD robotizes this procedure by logging collaboration occasions and utilizing a custom example mining calculation to distinguish setting structures which are task-related data and individuals. So also, Ivan relates archives consequently through client movement while TaskTracer is based around the meaning of assignment profiles which at first includes manual client determination of the project clients are taking a shot at. These three frameworks are the latest works and will be depicted in further detail. CAAD merits specific consideration as its thorough client study has suggestions for the assessment attempted right now.

B. The Fragmented Nature of Work

The examination into task the board requests a comprehension of the idea of errands that individuals, working separately or with others, mean to finish. The specific assignments being performed may vary, however, there are regular qualities that have suggestions for how instruments are utilized. Investigations of data laborers have featured that their work is administered by various assignments that they should make sure to perform, regularly in equal or in fast progression (Czerwinski et al., 2004). This divided way of work implies performing multiple tasks competency, the proficiency of errand exchanging and interference the board influences task fruition (González and Mark, 2004, 2005; Mark et al., 2005) and could impact the selection of assignment the executive’s devices among clients.

The idea of working circles has been utilized to depict the units of work that individuals seek after to meet their duties (González and Mark, 2005). A working circle is a lot of interrelated occasions, which share a typical thought process, include correspondence with others, utilize a scope of assets and have their time (González and Mark, 2004). (All things considered, 11.7 working circles one after another. The laborers went through around 11 minutes in a circle before changing to another or being interfered with. What’s more, inside circles, individuals have been seen to go through just around 2 minutes utilizing any electronic instrument, application or paper report before they change to another (González and Mark, 2004). This is a solid inspiration for considering interferences and undertaking recuperation as elements that can empower or discourage the utilization of a specific device.

III. SYSTEM ARCHITECTURE

This system follows the MVT pattern. To comprehend MVT, think of a Model as a Logical information structure. It is the middleware and information handler among database and view. The Model gives a meaning of how the information designs as originating from the view along these lines, it stores in the database and the other way around, i.e., the recovering data from the database moves to the view in the displayable format.

Fig. 1. Flow of Django Framework

Model: Model is going to go about as the interface of your information. It is liable for looking after information. It is the coherent information structure behind the whole application and is spoken to by a database (by and large social databases, for example, MySql, Postgres).

View: The View is the UI — what you find in your program when you render a site.

Template: A layout comprises of static pieces of the ideal HTML yield just as some unique punctuation depicting how powerful substance will be embedded.

Django needs an advantageous method to produce HTML powerfully. The most well-known methodology depends on formats. A format contains the static pieces of the ideal HTML yield just as some exceptional sentence structure portraying how powerful substances will be embedded. The format gives significantly more extensibility to the frontend engineers than what MVC design was giving. One layout can be utilized by various perspectives to show different configurations of information. It keeps all the substance that is rendered by the program. This part is what is unmistakable to the customer side. Model and perspectives live on the server-side.

Fig. 2. MVT Pattern
The deceptive piece of this graph is the view. The view in Django is frequently depicted as being proportionate to the controller in MVC. The view in Django is frequently portrayed as being comparable to the controller.

**IV. SYSTEM DESCRIPTION**

**A. PROJECT LIST**

Where this application first opens with the task list structure which contains all present and further up and coming projects of the organization which will be helpful for all representatives to think about their working undertakings unmistakably. This data will be included by the administrator so different representatives can simply see the reasonable data about the undertaking. Given these undertakings, just tasks will be made for each representative. Giving this data is an important one. Rather than providing this information through email, one can include the information on this site and which will be helpful to see at the same time while working.

Below screenshots is admin’s site.

**B. TASK LIST**

Tasklist which comprises the number of assignments with the task id, task name, with the beginning date and the due date alongside the name of the representatives who made the undertaking and for whom it was created. One who made the task just ready to roll out any improvements in regards to the task while the individual who is going to work under the undertaking can only ready to see the task description. On the off chance that they had any questions, they can include it in their remark area. At the point when the undertaking is approaching the due date warning will be given as a suggestion to finish the assignment. With alert message will be displayed on the previous date and on the due date of the task.

For each finished assignment, the document will be transferred by the worker who worked under the undertaking with the fulfillment time. After investigating the record and looking at the number of hours required by the representative to finish the undertaking report will be created.

**C. TASK MEDIA**

As per the task assigned by the admin to the respective employee, the completed task will be updated in the task media. Where the completed work will be uploaded as a file by the employee.
Intelligent Framework for Task Maintenance and Appraisal

Admin will download the uploaded work file to review the work skill. Based upon this task score will be rewarded.

Respected User’s site:
Upload Media task

Fig.7. Upload Media

Task media
Using the Download media option admin will download the worked file and view the work skill.

Fig.8. Task Media

D. REPORT LIST

For each completed task the undertaking score will be produced by survey the document where the record comprises work they have done. It will be assessed dependent on the aptitude in their undertaking. Proficiency for the assignment will be created by the number of hours they require to finish the work. This report will be valuable during the examination of the organization. The target of this framework is to get things on time with great effectiveness and extraordinary ability.

Admin site:

Fig.9 Report List(Admin)

Respected User’s site:

Fig.10. Report List(User)

Powerful Task management improves effectiveness just as representative confidence. At the point when your administrators and workers are proficient, everything runs a great deal smoother. There are fewer contentions and fewer blunders in correspondence. Follow these tips to get the best approach to task the board productivity.

1. Make a list

Compelling undertaking the board starts with powerful correspondence. Give task records toward the start of each move for each unique position. Post them in effectively unmistakable places with the goal that everybody can see them and reference them all through the move. Urge workers to make their own duplicate of the undertaking list that they are liable for with the goal that they can keep it close and allude to it all through the move.

2. Use programming apparatuses

The product that you issue to your workers for everyday undertakings may have a "plan for the day" work or schedule work. Use this by making errands and records inside the product so every representative has customized bearing for every day. You can utilize Runrun.it as an assignment the board programming.

3. Give clear due dates

With regards to schedule capacities, use updates and cautions to guarantee that due dates are practiced. Regardless of whether the undertakings are expected toward the finish of the move, give explicit occasions if conceivable. Be as close as you can so that there are fewer mistakes in correspondence.

4. Utilize encouraging feedback

Successful and effective assignment the executives improve confidence by giving representatives more power over their days of work. At the point when assignment records are finished on schedule, react emphatically so workers are probably going to keep finishing task records on time just as they urge their kindred representatives to do likewise. You can compensate your best representatives, and make them a genuine model in your organization.

5. Order for bombed cutoff times

As much as viable undertaking the executives improve effectiveness, ineffectual assignment the board will back things off and likely make snapshots of tumult. So as to forestall this, discipline representatives that don't finish their errands on schedule. Give away from gathering cutoff times and the outcomes of not doing as such.

V. METHODOLOGY

In Order to Provide the Task Report which includes two main results one is the Task Score and the other is Task Efficiency. These results Can be obtained through the following steps

1. Task Score will present their smart work in the completion of the task. The person who assigned the task will be reviewing the media file by downloading based upon their skill task score will be Awarded.

2. Task Efficiency will be generated by time, This system will monitor the task from the minute it is created to till the completion status of the task. By This completed time we will calculate the efficiency in report form by proceeding the input with estimated time and completion time. This will generate the result.
1 Front end, Backend - Django

Django accompanies a purposefully fundamental Templating Language that can perform essential rationale, for example, circles and channels. Also, shockingly, Django has opposed the compulsion to include intricacy here; the Django Templating Language despite everything stays uncovered and boned in usefulness.

Most Django designers along these lines fall into the back-end camp of the full-stack range. They control the database and rationale of a site and frequently, in organizations, depend on a different front-end engineer to tweak the introduction in a Django format.

2 Database - SQLite3

The record is a database document where all the information that you will create will be put away. It is a neighborhood record as Django is a server-side structure and it regards your PC as the host when you run the server in order line/terminal.

VI. EXPERIMENTAL RESULT

| Project Name          | Task Name          | Task Status | Task Score | Task Efficiency |
|-----------------------|--------------------|-------------|------------|----------------|
| On-Campus Recruitment | Create Sign in & Signup | Done       | 9          | 94%            |
| Automatic supermarket | Replicate the website | Done       | 7          | 75%            |

VII. CONCLUSION

In the research of task monitoring and Appraisal are said to be one of the most important resources a company can have its management toolkit. Thus accomplishment of the project relies on one individual who realizes how to compose, timetable and agent task in a simple advance. For every completed task score and task productivity will be given, Where task score will be given by investigating the record transferred by the worker who finished the task and proficiency will be created utilizing the number of hours required to finish the task, from that we will be ready to anticipate the representative’s expertise and viability. In light of the task report, each representative can know their degree of execution and this will assist them with knowing how to function productively. Through enabling to stream their workflow, task management solutions deliver a significant increase in the efficiency of their core business process. It doesn’t matter whether you have small or big projects that need to be completed promptly."Thus the real value of task management is the ability to empower employees.""

REFERENCE

1. Rami Rashkovits; Ilana Lavy "Management and evaluation of tasks using an online system" 2016 International Conference on Information Society.
2. M. Hopkinson "Utilizing Task Priority Models" Kluwer’s Task Management, Briefing 40, pp. 4-8, Jan 2014.
3. Ellis, J. and Kavailashvili, L. (2000), “Prioritization of tasks in 2000: Past, present, and future bearings”, Task Management, 14 Jan 2000.
4. S. McKenna “Organisational Complexity and Perceptions of Task”, Task Management: An International Journal Vol3, No.2, pp. 53-64, 2013.
5. Mau, Heiko, M.P. van der Aalst, Wil, Rickayzen, Alan, Riss, Uwe. V. “Difficulties for Business Processes and Task Management,” Journal of Universal Knowledge Management. Volume 0, Issue 2, 2005.
6. Bianchi, Rich. “6 key components for better Task Management,” Tech Republic. January 3, 2005.
7. Thomas Cutting “Relationship versus Task-Oriented Management”. 3 March 2010.
8. Rami Rashkovits; Ilana Lavy “Management and evaluation of tasks using an online system” 2016 International Conference on Information Society (i-Society).
9. N S Jyothi; A Parkavi “A study on task management system” 2016 International Conference on Research Advances in Integrated Navigation Systems (RAINs).
10. Sayaka Ajikata; Ichiro Kobayashi “A Study on TODO Task Management at Home” 2009 International Conference of Soft Computing and Pattern Recognition.

AUTHORS PROFILE

Selvakumar Guruswamy ME/CSE
Associate Professor
5 years of experience in developing Enterprise Software applications especially for the Banking and Capital markets industry in Capp Gemini, India.
Expertise in Java, J2EE, Web technologies and Android mobile applications development.
8 years of teaching and research experience.
Primary research interests are in the areas of Internet of Things, Cloud Computing, Data Science and Enterprise Applications Development.
Published around 10 papers in international journals and conferences.
Currently pursuing a Ph.D. in Anna University, Chennai, India.
cellvas@gmail.com

Deepthi.R UG Student,
Department of Computer Science and Engineering,
Sri Shakthi Institute of Engineering and Technology.
Expertise in C, Python, and Django
Doing an internship as a software developer at Techvolt Software.
deeplideepsz18@gmail.com

Harini.V UG Student,
Department of Computer Science and Engineering,
Sri Shakthi Institute of Engineering and Technology.
Expertise in C, Python and handling data sets in Python.
Doing an Internship at Amazon.
harinivil@gmail.com
Intelligent Framework for Task Maintenance and Appraisal

Kosuri Nikhita  UG Student,
Department of Computer Science and Engineering,
Sri Shakthi Institute of Engineering and Technology.
Department of Computer Science and Engineering,
Sri Shakthi Institute of Engineering and Technology.
Expertise in C, Python and handling data sets in Python.
Doing an internship at Aspire systems.
nikhitsakosuri@gmail.com

Dinesh Kumar  UG Student, Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology.
Expertise in C, JAVA, and all web-technologies including React.js.
Doing an internship at doodle blue innovations.
dineshkamara@gmail.com