



SMART INDIA
HACKATHON
2020

DigiDocs

Easier saving paper than planting
trees

By Team BitWise

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GitHub Link:

https://github.com/teamBitWise/NC_TIU_DS171_BitWise



PROBLEM STATEMENT

Problem Code: DS171

Organisation: Dr. B. R. Ambedkar Institute of Technology, Andaman and Nicobar Islands.

- **Primary focus:** Making the official activities to go paperless.
- Automating procedures through a **customizable** and **easy to use** workflow management system.
- Handling submission and approval of documents with **facility to sign** the document with **approval seal**.
- Intimating the concerned party by **email** at each stage and sending official communications through **e-media**.



DigiDocs : The Features

01

Workflow Automation

Assemble complex workflows, starting **from scratch** or using a **pre-built** template.

02

Online Forms

Create any digital form in just minutes with our **drag-and-drop** form builder or choose from available templates.

03

Analytics

Custom **dashboards** and **visualization tools** give you insights and real-time updates for strategic decision making.

04

E-Communication

Send official communications through **emails**, **In-App Notifications** and **instant messaging chat** service.

05

Encryption and E-Signatures

Authorised approval through Electronic signature and approval seal along with Authentication Techniques(eg. **PIN/Biometrics**)

06

Utilities

Organise your tasks, schedule your meetings and stay updated with our **In-App ToDo List and Planner**. Share with the world the good deed done using the **Tree Tracker** feature.

TECHNOLOGY STACK

Front-End



Back-End



WORKFLOW AUTOMATION

DigiDocs provides a simple yet efficient workflow automation system that integrates process automation tools to replace manual and paper-based processes.

- Facility to assemble complex workflows starting **from scratch** or using a **pre-built** template of predefined processes.
- Create digital forms by importing existing or create new with **drag-&-drop** feature.
- Add Approving Authorities in a flowchart via easy to use **drag-&-drop** feature.
- Modify/Update workflow in case of discrepancy or feedback.
- View **real-time status** of the workflow.



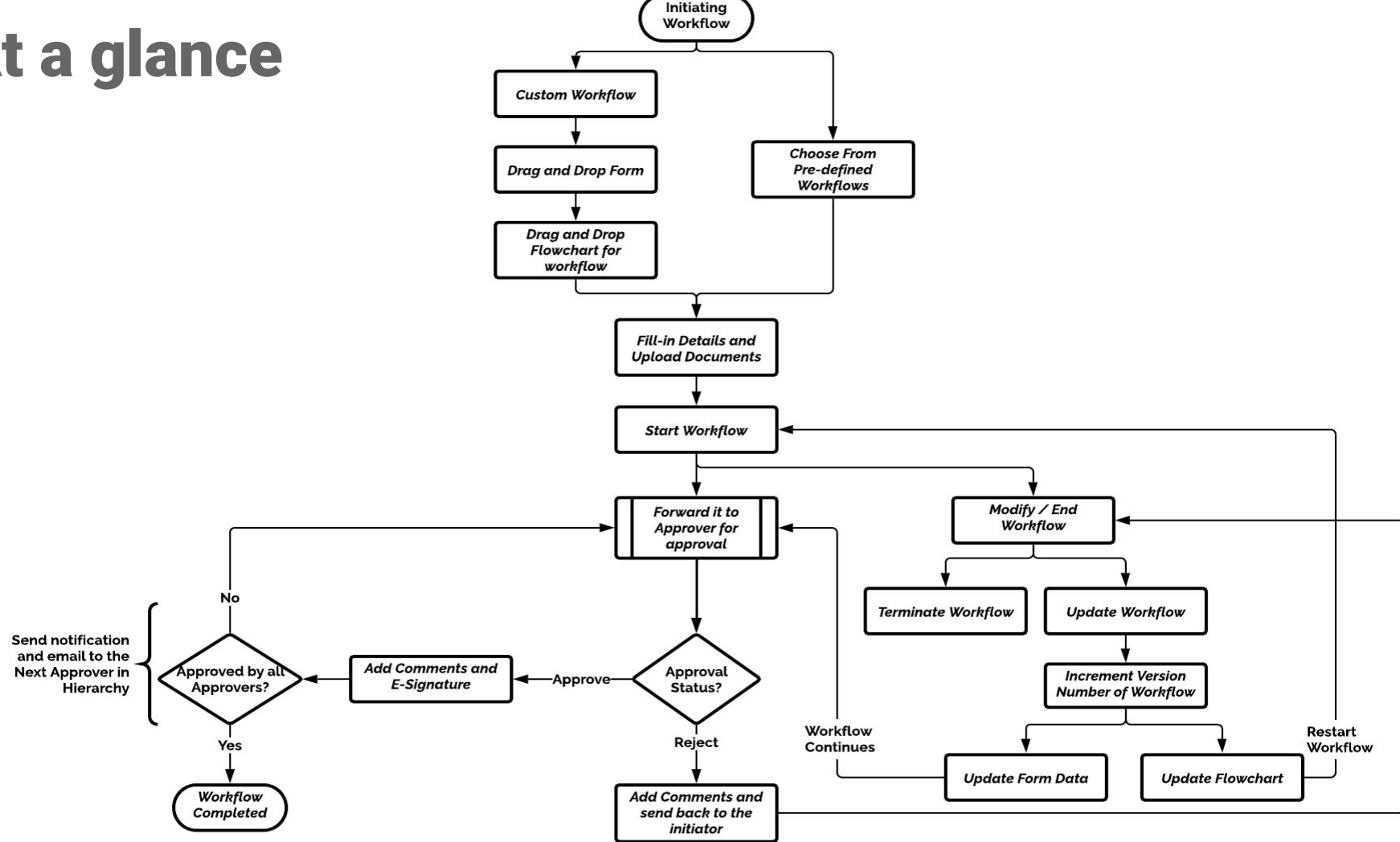
Unique features of our Workflow Automation System

- **Branch Nodes:** The DigiDocs system automatically chooses the more efficient path without any manual intervention depending upon the availability of Approvers in the different flows.
- **Group as Approvers:** Rather than a single approver, group of approvers can also be chosen for the approval hierarchy while designing the Workflow.
 - Example: All Assistant Professors can be assigned as Approvers at a Node in the workflow.
- **Approver on Leave:** The approver will submit a leave form where he/she can choose a nominee to take up the duty in his/her absence, as well as specify other details about his leave.
- **View Profile:** At each node a user can **view the details of the Approver** by searching his/her profile.
- One can easily figure out the average time taken at that level by the approver by **viewing the approver's average response time** and take decision to apply urgently or patiently.

Unique features of our Workflow Automation System (Contd...)

- **My Team:** Any approver can **view his team** i.e all approvers that work under him in the approval hierarchy.
 - He can then **view the pending approvals of his colleagues** and accordingly **give them feedback or guidance**, regarding any essential application.
- **Archive** workflows that are no longer required.
- **Secure Log files** generated that store all the information and can be very useful in future for forensic Audits and Analytics.

At a glance



E-SIGNATURE

User Authorisation

Initial password based login to verify the identity of the user.

2 Step Verification

E-Signature of an approving authority on the documents in any workflow is safeguarded by a 2 Step verification process to prevent any forgery. A **4 digit security pin** is required to attest any document with E-Signature.

PIN interface can easily be extended to OTP (One Time Password) or Biometrics.

Representative E-Signature

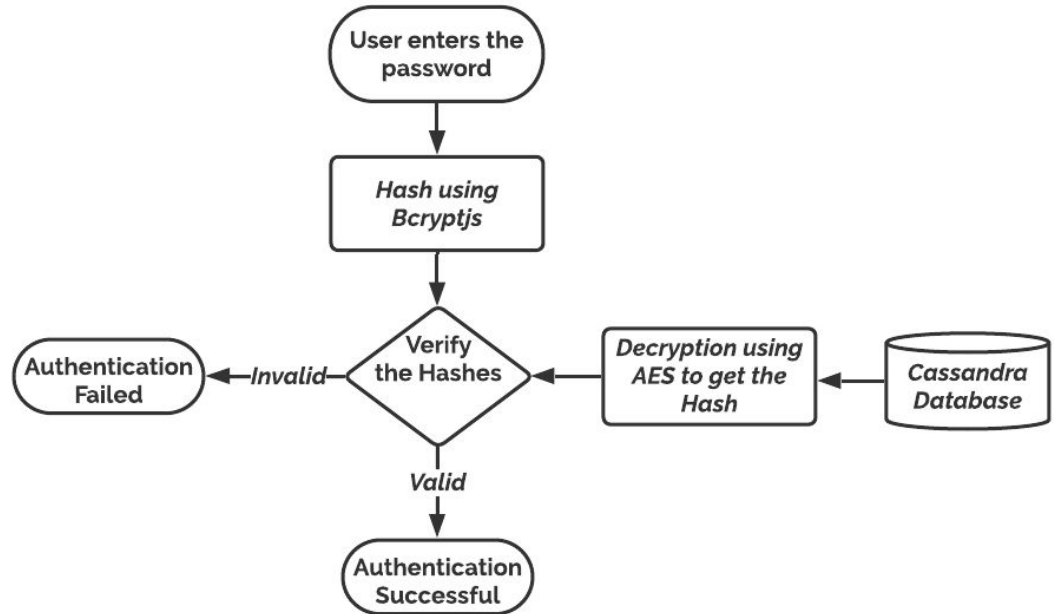
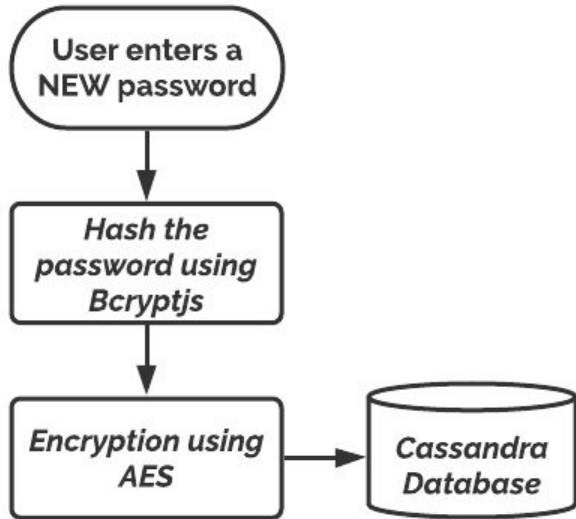
analogous to signature on
paper



Signed by Ravindra Keskar

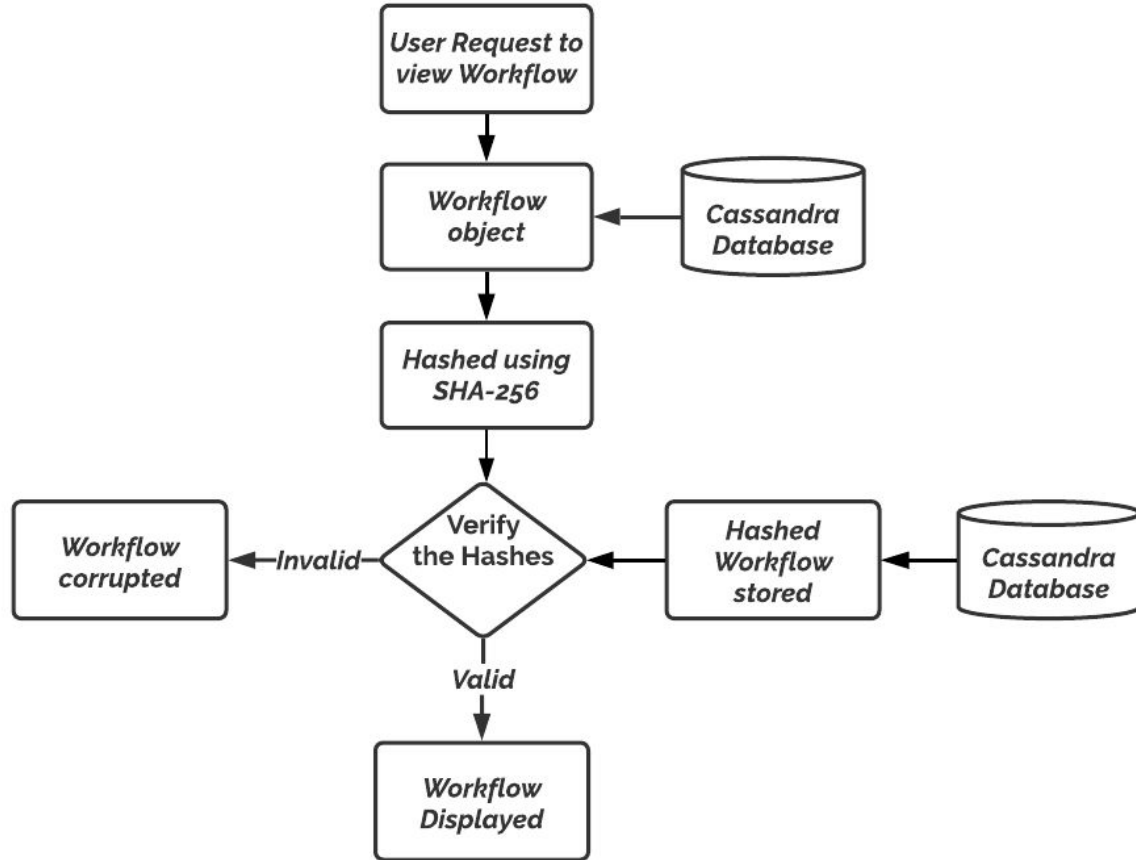
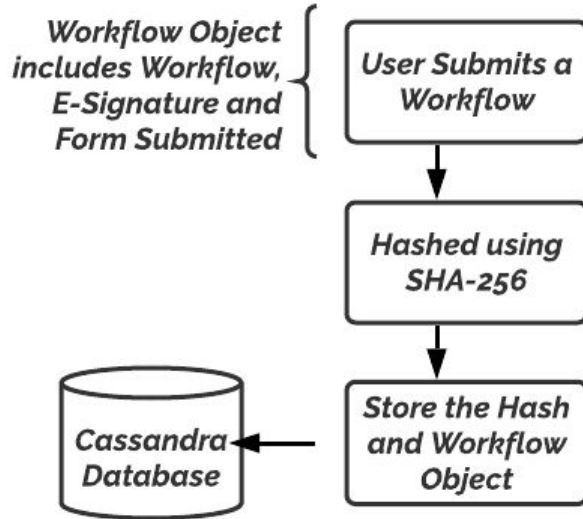
SECURITY

- Along with **hashing** the password in initial stage with a **BlowFish cipher**, we have used **AES** for encrypting and decrypting the same. This hybrid layer of security comprising of two strong cipher techniques makes our platform secure and robust. JavaScript libraries used **bcryptjs**(Blowfish Cipher), **aes-js**(AES)



WORKFLOW-

Stored (Left) and Retrieved (Right)



E-MEDIA AND COMMUNICATION

E-Mail

Provision to send official communications through **emails** to intimate the concerned party at various stages of the workflow.

In-App Notifications

Custom **notifications** are displayed on the platform.

DigiConnect

A Chat application embedded in the platform itself that can be used to connect with your peers.



UTILITY FEATURES

01

Interactive Dashboard

02

Approval Seal

03

NewsFeed

04

ToDo List

05

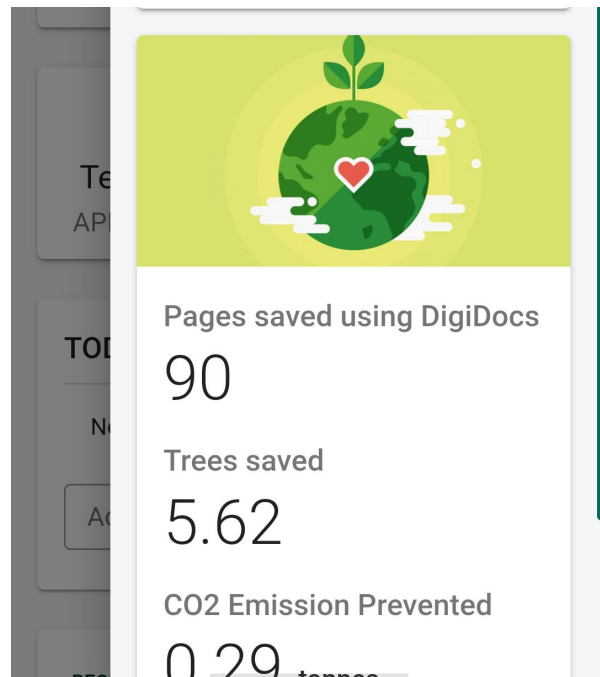
Planner

06

DigiConnect

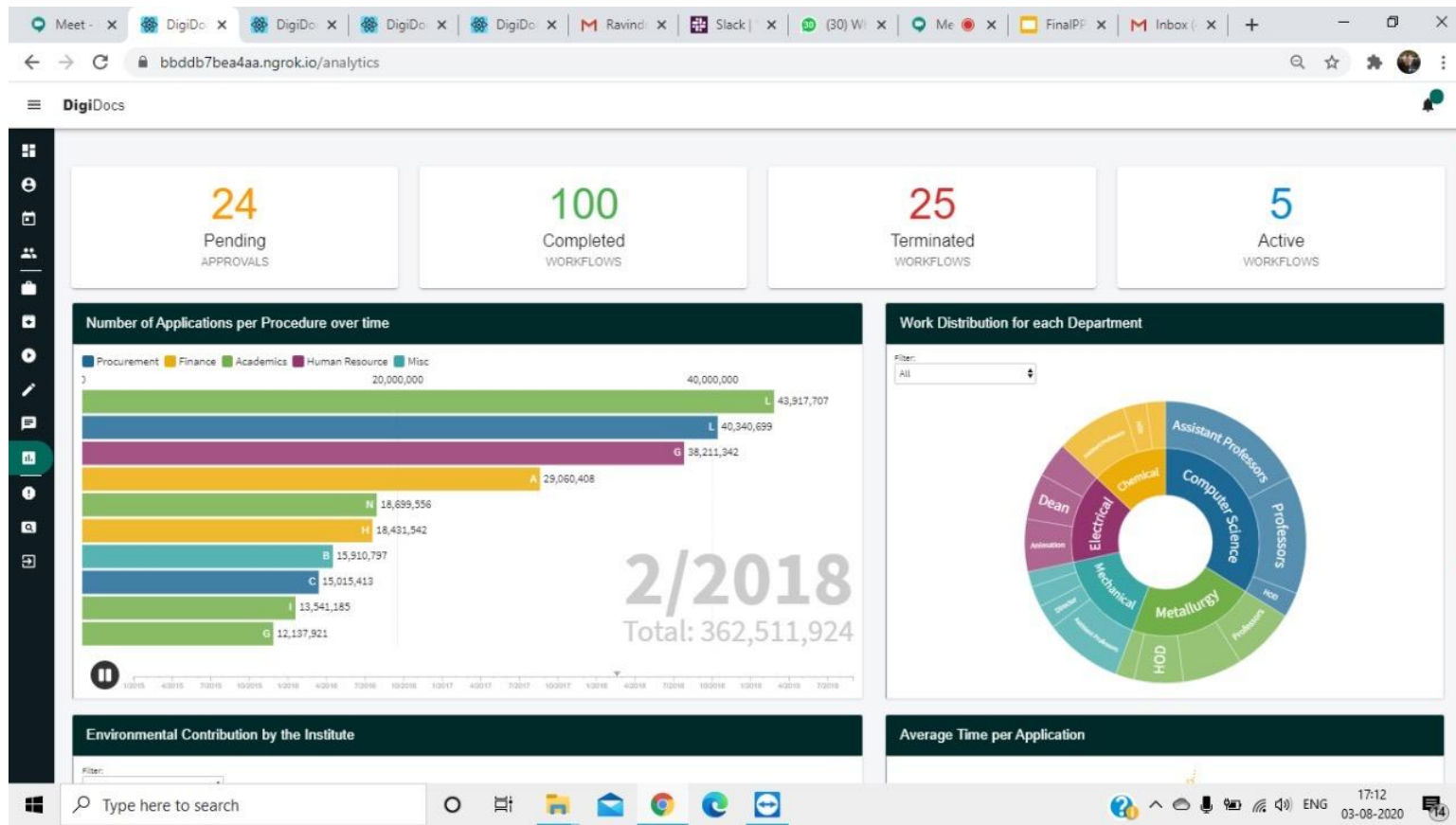
07

Tree Tracker



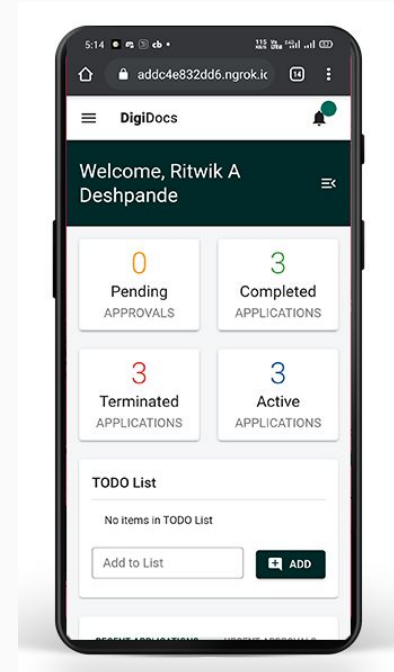
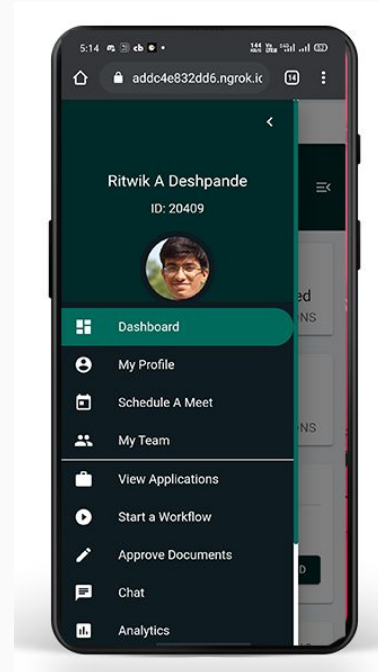
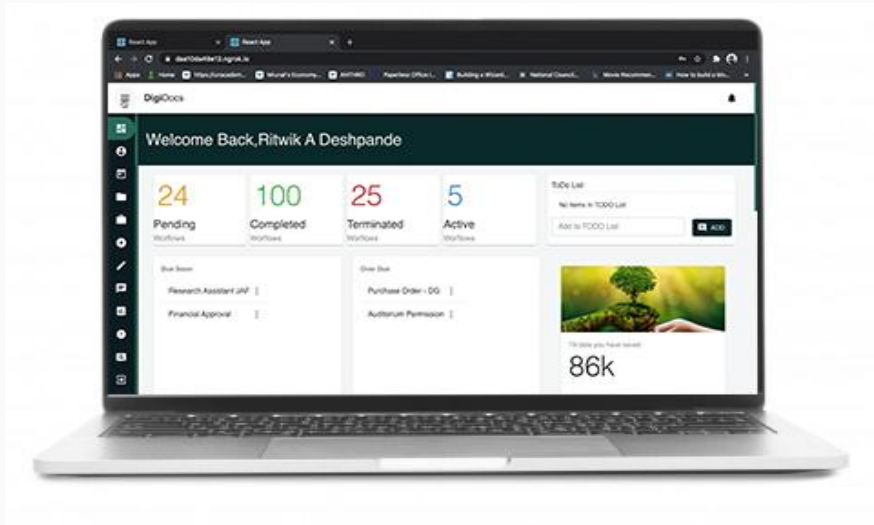
08 Analytics

Give you insights and real-time updates for strategic decision making.



09

Responsive UI



THANK YOU

