

Project Report Format

1. INTRODUCTION

1.1 Project Overview

This project analyzes the evolution of Union Budget allocations in India over the years. It provides data-driven insights using visualization and forecasting techniques to understand sector-wise growth trends and their contribution to sustainable development.

1.2 Purpose

The purpose of this project is to promote transparency, improve policy understanding, and support sustainable growth analysis through structured budget data analytics.

2. IDEATION PHASE

2.1 Problem Statement

There is no centralized, interactive system to analyze historical Union Budget allocations and evaluate their impact on sustainable growth sectors like health, education, infrastructure, and environment.

2.2 Empathy Map Canvas

- **Users:** Researchers, Students, Policymakers, Citizens
- **Think:** How is the budget allocated?
- **Feel:** Need transparency and clarity
- **See:** Complex PDF documents
- **Say:** Budget data is hard to analyze
- **Pain Points:** Unstructured data, lack of visualization
- **Gain:** Clear insights, trend comparison, forecasting

2.3 Brainstorming

- Interactive dashboard
 - Sector-wise trend analysis
 - AI-based forecasting
 - SDG mapping
 - Downloadable reports
-

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

1. User registers/logins
2. Accesses dashboard
3. Selects sector/year filters
4. Views charts and trends
5. Downloads report

3.2 Solution Requirement

- User Authentication
- Data Upload & Storage
- Data Cleaning & Processing
- Visualization Dashboard
- Forecasting Module
- Report Generation

3.3 Data Flow Diagram (DFD)

User → Login/Register → Dashboard → Data Processing → Database → Visualization → Report Download

3.4 Technology Stack

- Frontend: HTML, CSS, JavaScript
- Backend: Python / Flask
- Database: MySQL / MongoDB
- Visualization: Matplotlib / Power BI
- Machine Learning: Scikit-learn

4. PROJECT DESIGN

4.1 Problem Solution Fit

The solution transforms raw budget documents into structured, visual, and predictive insights.

4.2 Proposed Solution

A web-based analytical platform that:

- Analyzes historical Union Budget data
- Displays interactive charts

- Predicts future allocation trends
- Maps spending to sustainability goals

4.3 Solution Architecture

Data Sources → Data Collection → Database → Data Processing → Analytics Engine → Dashboard → User

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Sprint-1: Data Collection & Authentication
- Sprint-2: Data Processing & Dashboard
- Sprint-3: Analytics & Forecasting
- Sprint-4: Testing & Deployment

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

- Dashboard loads within 3–5 seconds
- Supports multiple concurrent users
- Accurate data visualization
- Secure login validation

7. RESULTS

7.1 Output Screenshots

- Login Page
- Dashboard with sector-wise charts
- Year-wise comparison graph
- Forecasting output
- Report download

8. ADVANTAGES & DISADVANTAGES Advantages:

- Promotes transparency
- Easy-to-understand visualizations

- Supports policy research
- Scalable system **Disadvantages:**
- Depends on accurate dataset availability
- Forecasting may vary with economic conditions

9. CONCLUSION

The project successfully provides a structured and analytical approach to understanding Union Budget allocations and their impact on sustainable development in India.

10. FUTURE SCOPE

- Integration with State Budgets
- Real-time economic data integration
- Mobile Application
- Advanced AI forecasting models

11. APPENDIX

Source Code:

Flask code:

```
from flask import Flask, render_template
```

```
app = Flask(__name__)
```

```
@app.route('/') def
```

```
home():
```

```
    return render_template('index.html')
```

```
if __name__ == '__main__':
```

```
    app.run(debug=True)
```

HTML code:

```
<!DOCTYPE html>
```

```
<html lang="en">

<head>

<meta charset="UTF-8">

<title>Empowering India: Analysing the Evolution of Union Budget Allocations for Sustainable Growth</title>

<meta name="viewport" content="width=device-width, initial-scale=1.0">


<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
rel="stylesheet">


<style> html { scroll-behavior:
smooth; }


body {  font-family: 'Segoe UI',
sans-serif;  background: #f8f9fa;
overflow-x: hidden;
}


/* GLASS NAVBAR */
.navbar {  background:
rgba(13,110,253,0.85);  backdrop-
filter: blur(10px);  transition: 0.4s;
}


.navbar .nav-link, .navbar-
brand {  color: white
!important;  font-weight:
500;
}
```

```
/* HERO SECTION */ .home { background: linear-  
gradient(135deg, #1e3c72, #2a5298); color: white; text-  
align: center; animation: zoomIn 1.5s ease;  
}
```

```
@keyframes zoomIn {  
  from {transform: scale(1.1); opacity: 0;}  
  to {transform: scale(1); opacity: 1;}  
}
```

```
/* SECTION REVEAL ANIMATION */  
section { min-height: 100vh;  
padding: 100px 0; opacity: 0;  
transform: translateY(60px);  
transition: all 1s ease;  
}
```

```
section.active { opacity: 1;  
transform: translateY(0);  
}
```

```
/* HEADING ANIMATION */  
h2 {  
  position: relative;  
display: inline-block;  
}
```

```
h2::after { content: "";  
width: 0%; height: 4px;  
background: #0d6efd;  
display: block; margin:
```

```
10px auto 0;  transition:
0.5s;
}
```

```
section.active h2::after {
width: 60%;
}
```

```
/* FLOATING IFRAME EFFECT */ iframe {
border-radius: 20px;  box-shadow: 0 15px
35px rgba(0,0,0,0.2);  transition: 0.4s;
}
```

```
iframe:hover {  transform: translateY(-
10px);  box-shadow: 0 25px 45px
rgba(0,0,0,0.3);
}
```

```
/* FOOTER */
footer {  background:
#0d6efd;  color: white;
text-align: center;
padding: 20px;
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<!-- NAVBAR -->
```

```
<nav class="navbar navbar-expand-lg fixed-top">
```

```

<div class="container">

  <a class="navbar-brand" href="#home">IN Empowering India</a>
  <div>
    <a class="nav-link d-inline" href="#home">Home</a>
    <a class="nav-link d-inline" href="#dashboard1">Dashboard 1</a>
    <a class="nav-link d-inline" href="#dashboard2">Dashboard 2</a>
    <a class="nav-link d-inline" href="#story1">Story 1</a>
    <a class="nav-link d-inline" href="#story2">Story 2</a>
  </div>
</div>
</nav>

<!-- HOME -->
<section id="home" class="home d-flex align-items-center active">
<div class="container">
  <h1 class="display-4 fw-bold" id="title"></h1>
  <p class="lead mt-3">Union Budget Analysis Dashboard & Story using Tableau and Flask</p>
</div>

</section>

<!-- DASHBOARD 1 -->
<section id="dashboard1" class="bg-light">
<div class="container text-center">
  <h2 class="mb-4"> DASHBOARD 1</h2>
  <iframe
src="https://public.tableau.com/views/Book1_17710921805490/Dashboard1?:showVizHome=
no&:embed=true" width="100%" height="700" allowfullscreen></iframe>
</div>
</section>

<!-- DASHBOARD 2 -->

```



```
<section id="dashboard2" class="bg-light">
<div class="container text-center">

  <h2 class="mb-4"> DASHBOARD 2</h2>

  <iframe
src="https://public.tableau.com/views/Book2_17710923458570/Dashboard2?:showVizHome=
no&:embed=true"  width="100%" height="700" allowfullscreen></iframe>

</div>
</section>
```

```
<!-- STORY 1 -->
<section id="story1">
<div class="container text-center">

  <h2 class="mb-4"> STORY 1</h2>

  <iframe
src="https://public.tableau.com/views/Book3_17710924124180/Story1?:showVizHome=no&:e
mbed=true"  width="100%" height="700" allowfullscreen></iframe>

</div>
</section>
```

```
<!-- STORY 2 -->
<section id="story2">
<div class="container text-center">

  <h2 class="mb-4"> STORY 2</h2>

  <iframe
src="https://public.tableau.com/views/Book4_17710924930620/Story2?:showVizHome=no&:e
mbed=true"  width="100%" height="700" allowfullscreen></iframe>

</div>
</section>
```

```
<footer>

© 2026 Internship Project | Empowering India – Union Budget Analysis using Tableau & Flask

</footer>
```

```
<script>
```

```
/* SCROLL REVEAL */ const sections =  
document.querySelectorAll("section");
```

```
window.addEventListener("scroll", () => {  const  
trigger = window.innerHeight * 0.85;  
sections.forEach(sec => {  
if(sec.getBoundingClientRect().top < trigger){  
sec.classList.add("active");  
    }  
});  
});
```

```
/* TYPEWRITER EFFECT */
```

```
const text = "Empowering India: Analysing the Evolution of Union Budget Allocations for  
Sustainable Growth";
```

```
let i = 0; function typing(){  if(i < text.length){  
document.getElementById("title").innerHTML += text.charAt(i);  
i++;  
    setTimeout(typing, 30);  
  }  
}  
typing();
```

```
</script>
```

```
</body>
```

```
</html>
```

Dataset Link:

<https://www.kaggle.com/datasets/prasenjitsharma/indian-union-budgetfy-21-22-till-23-24>

GitHub & Project Demo Link:

<https://github.com/saiprem-b3dudur1/Empowering-India-Analysing-the-Evolution-of-Union-Budget-Allocations-for-Sustainable-Growth>

2.Project Demo Link:

<https://drive.google.com/file/d/1PovG8Aj43mxz1fxaFlZCCpPOujf0V-mK/view?usp=drivesdk>

TABLEAU PUBLIC LINKS:

1.DASHBORD1 LINK:

https://public.tableau.com/views/Dashboard1_17718355668080/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

2.DASHBORD2 LINK:

https://public.tableau.com/views/Dashboard2_17718362461440/Dashboard2?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

3.STORY 1 LINK:

https://public.tableau.com/shared/QR34FQNBG?:display_count=n&origin=viz_share_link

4.STORY 2 LINK:

https://public.tableau.com/views/story2_17718364997600/Story2?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&origin=viz_share_link