

# 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.

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## 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
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### **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

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### **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

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## **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
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## **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
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## **7. RESULTS**

### **7.1 Output Screenshots**

- Login Page
  - Dashboard with sector-wise charts
  - Year-wise comparison graph
  - Forecasting output
  - Report download
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## **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
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## 9. CONCLUSION

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

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## 10. FUTURE SCOPE

- Integration with State Budgets
  - Real-time economic data integration
  - Mobile Application
  - Advanced AI forecasting models
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## 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&:embed=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&:embed=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](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](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](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](https://public.tableau.com/views/story2_17718364997600/Story2?:language=en-US&publish=yes&:sid=&:redirect=auth&:&display_count=n&:origin=viz_share_link)