# **BudgetWise Web App – Roadmap with Technologies (react Version)**

### **Phase 1: Foundations (Weeks 1–2)**

**Goal:** Authentication & user profiles

* **Backend:** Java (Spring Boot, Spring Security, JWT)
* **Frontend:** React
* **Database:** PostgreSQL or MySQL
* **APIs:** RESTful APIs (Spring Boot controllers)
* **DevOps:** GitHub, Docker for containerization

✅ **Deliverable:** Secure login/signup, role-based access, profile setup.

### **Phase 2: Transaction Tracking (Weeks 3–4)**

**Goal:** Expense & income management

* **Backend:** Spring Data JPA (CRUD APIs for transactions, categories)
* **Frontend:** React + validation
* **Features:** Categorized input, edit/delete transactions, transaction history
* **Database:** Expense & income tables with category mapping

✅ **Deliverable:** Users can record, edit, and view categorized transactions.

### **Phase 3: Budgeting & Savings (Weeks 5–6)**

**Goal:** Budgets & savings goals

* **Backend:** Business logic in Spring Boot (budget progress, alerts)
* **Frontend:** React components for budgets (progress bars, cards, alerts)
* **Database:** Budget & savings goals schema
* **Notifications:** Simple rule-based alerts when nearing/exceeding budgets

✅ **Deliverable:** Budget & savings goals fully functional with progress tracking.

### **Phase 4: Visualization & Analytics (Week 7)**

**Goal:** Financial insights with charts

* **Frontend:**, Apex Charts, or Chart.js for React
* **Backend:** Aggregate queries with JPA/JPQL
* **Features:**
  + Monthly spending comparisons (bar charts)
  + Category-wise breakdown (pie charts)
  + Income vs expenses trends

✅ **Deliverable:** Interactive dashboard with accurate visual insights.

### **Phase 5: Export & Community (Week 8)**

**Goal:** Data export & optional forum

* **Data Export:** Apache POI (Excel/CSV), iText/JasperReports (PDF)
* **Cloud Backup:** Google Drive API / Dropbox API integration
* **Community Forum (Optional):**
  + Backend: Spring Boot REST APIs for posts/comments
  + Frontend: React forum UI (likes, comments, discussions)
* **Optional AI Advisor:** Integrate financial tips (rule-based or OpenAI API)

✅ **Deliverable:** Export/backup working; community/forum feature available.

## **📊 Evaluation Criteria**

* **Week 2:** Authentication & profile setup complete
* **Week 4:** Expense & income tracking working
* **Week 6:** Budget & savings functional
* **Week 7:** Data visualizations ready
* **Week 8:** Export & community/forum implemented

⚙️ **Final Tech Stack:**

* **Backend:** Java, Spring Boot, Spring Security, JWT, JPA/Hibernate
* **Frontend:** React, ApexCharts
* **Database:** MySQL
* **Data Export:** Apache POI, JasperReports/iText
* **Cloud:** Google Drive/Dropbox API
* **DevOps:** GitHub/GitLab, Docker, CI/CD (GitHub Actions/Jenkins)