Twi: Web & Mobile App Development Plan

1. Architecture Overview

Frontend:

- **Web Platform:** React.js (Next.js for SSR & SEO optimization)
- **Mobile Apps:** React Native (for iOS & Android)

Backend:

- **API:** Node.js with Express.js
- **Database:** MongoDB (scalable NoSQL database)
- **Authentication:** JWT for secure user authentication & role-based access control
- **Real-time Notifications:** Firebase Cloud Messaging (FCM)
- **Geolocation:** Google Maps API for artist location tracking
- **Payments & Wallet:** Stripe & PayPal API for transactions and withdrawals

Infrastructure:

- **Hosting:** AWS (EC2, S3, RDS, CloudFront, Lambda for serverless functions)
- **Admin Dashboard:** Next.js hosted on Vercel
- **CI/CD:** GitHub Actions for automated testing & deployments
- **Security Measures:**
    - Data encryption at rest and in transit (TLS/SSL)
    - OWASP best practices for API security
    - Role-based access control (RBAC)

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2. Requirements Breakdown

Core Features:

For Artists:

1. **Geolocation & Service Publication** – Artists can share location & publish services in real-time.
2. **Twist & Notifications** – Artists receive requests; balance remains pending until completion.
3. **Reviews & Service Selection** – Artists have profiles with ratings & reviews.
4. **Payments & Withdrawals** – Wallet system; funds released after company confirmation.
5. **Subscriptions** – Gold & Platinum plans for enhanced visibility & perks.

For Companies:

1. **Service Purchase & Twist** – Companies can book artists & additional services.
2. **Corporate Subscriptions** – Gold & Platinum plans for access to more features.
3. **P.A. & Referral System** – P.A.s manage bookings, create teams, and earn commissions.
4. **Logistics & Delivery Confirmation** – Ensuring service completion before fund release.

Admin Features:

- User management (Artists, Companies, P.A.s)
- Approval of P.A. registrations
- Payment and subscription management
- Data analytics dashboard

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3. Timeline & Weekly Milestones (3 Months)

Project Duration: 12 Weeks

Month 1 - Core Development

Week 1: Project Setup & Backend Architecture

✅ Finalize architecture & tech stack
✅ Setup monorepo for frontend & backend
✅ Setup CI/CD pipelines (GitHub Actions, AWS, Vercel)
✅ Implement authentication (JWT, Role-based access)
✅ Database schema design & setup (MongoDB)

Week 2: Backend API Development

✅ Implement user registration/login API
✅ Develop artist geolocation API
✅ Implement role-based access control (RBAC)
✅ Build API for service postings & listings

Week 3: Admin Dashboard & Payment Setup

✅ Start Next.js admin panel development
✅ Implement Stripe & PayPal API for payments
✅ Integrate Firebase Cloud Messaging for notifications

Week 4: Web Frontend Development

✅ Build artist dashboard UI (React.js)
✅ Implement company dashboard UI
✅ Connect frontend with backend APIs

Month 2 - Feature Integration & Mobile App Development

Week 5: Mobile App Development Kickoff

✅ Setup React Native project
✅ Implement authentication in mobile app
✅ Develop artist service posting UI

Week 6: Geolocation & Notifications

✅ Integrate Google Maps API for geolocation
✅ Implement real-time notifications (FCM)
✅ Enable artists to update service availability

Week 7: Subscription & Payment Flows

✅ Implement Gold & Platinum subscription models
✅ Integrate payment system in web & mobile
✅ Allow users to subscribe/unsubscribe

Week 8: P.A. System & Logistics

✅ Implement P.A. onboarding & approval system
✅ Develop logistics module for service confirmation
✅ Build referral system for P.A.s

Month 3 - Testing, Deployment & Finalization

Week 9: Testing & Bug Fixing

✅ Conduct unit & integration tests
✅ Fix bugs & optimize performance
✅ Test payment & withdrawal flows

Week 10: Finalizing Mobile App & Web

✅ Final UI/UX refinements
✅ Implement multi-language support (if needed)
✅ Prepare apps for App Store & Google Play submission

Week 11: Deployment & Security Review

✅ Deploy backend & web app to AWS & Vercel
✅ Security audit & penetration testing
✅ Final testing before go-live

Week 12: Client Review & Launch

✅ Client demo & final feedback
✅ Deploy mobile apps to Play Store & App Store
✅ Official launch of Twi platform

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4. Final Deliverables

✔ Web platform (React.js)
✔ Native mobile apps (React Native)
✔ Secure backend (Node.js, Express, MongoDB)
✔ Admin dashboard for user & payment management
✔ Payment integration with Stripe & PayPal
✔ Real-time notifications (FCM)
✔ P.A. system & referral program
✔ Logistics & service confirmation system

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5. Conclusion & Next Steps

- **Regular Weekly Client Meetings**
- **QA & UAT in Final Weeks**
- **Post-launch monitoring & improvements**