**Django installs:: pip install django djangorestframework channels channels-redis psycopg2-binary celery redis pytest pytest-django factory\_boy**

**Phase 1: Project Setup & Git**

* Initialize Git repo, folder structure, environment setup (React + Django + MySQL + Docker)
* Install dependencies, setup virtualenv
* **Time:** 1–2 days

**Phase 2: Backend Development**

* Models, serializers, API endpoints (Django REST Framework)
* WebSocket setup with Django Channels for real-time updates
* Integration with TSX API (financial/stock data)
* Unit testing API endpoints
* **Time:** 7–10 days

**Phase 3: Frontend Development**

* React components, pages, routing
* WebSocket integration for live updates
* MUI styling and theming
* Charting libraries for dynamic graphs
* Unit tests for components
* **Time:** 7–10 days

**Phase 4: Dockerization**

* Dockerfile for backend and frontend
* Docker Compose for local development
* **Time:** 1–2 days

**Phase 5: Kubernetes Deployment**

* Create k8s manifests: Deployments, Services, ConfigMaps, Secrets
* Setup MySQL as a k8s deployment or RDS
* Configure Ingress and LoadBalancer
* Test scaling and failover
* **Time:** 3–5 days

**Phase 6: AWS Infrastructure & Deployment**

* EKS cluster setup (or EC2 + k8s)
* CI/CD pipeline (GitHub Actions or CodePipeline)
* Monitoring/logging (CloudWatch, Prometheus, Grafana optional)
* Final deployment & testing
* **Time:** 3–5 days

**Phase 7: Testing & QA**

* End-to-end testing, stress testing real-time data
* Bug fixes, code cleanup
* **Time:** 2–3 days