**Health Chatbot Development Timeline**

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**Phase 0: Development Proposal (June 3 - June 17)**

Tasks:

1. Define project scope and objectives
2. Identify the target user base and their needs
3. Outline key features and functionalities
4. Conduct a feasibility study and risk assessment
5. Prepare a detailed project plan and timeline
6. Generate a prototype architecture for the ChatBot

**Phase 1: Frontend Design (June 18 - June 24)**

Tasks:

1. Frontend design for 2 different users (Regular user/Admin user)
2. Research and define user experience (UX) requirements
3. Create wireframes for the main user flows
4. Develop high-fidelity mockups in **Figma**
5. Conduct user testing and gather feedback
6. Iterate on design based on feedback
7. Finalize Figma prototype for development

**Phase 2: Backend Design (June 25 - July 15)**

Tasks:

1. Define API endpoints and data models
2. Design database schema for **PostgreSQL**
3. Set up the **Django** project structure
4. Implement initial **Django** REST API endpoints
5. Design and implement user authentication and authorization
6. Develop documentation for API usage

**Phase 3: Project Development (July 16 - August 6)**

Tasks:

1. Frontend Development:
2. Set up the **React** project
3. Develop main components and views
4. Integrate Figma designs into React
5. Implement state management (e.g., Redux)
6. Handle form validations and user input
7. Backend Development
   1. Complete **Django** REST API endpoints
   2. Implement business logic and model interactions
   3. Integrate Redis for caching user sessions and queries (If time is available)
   4. Implement error handling and logging
   5. Conduct unit and integration testing for API
8. Database Development
9. Set up **PostgreSQL** database
10. Create necessary tables and relationships
11. Develop database migration scripts
12. Optimize database performance

Will create a prototype that runs locally and provide a demo

**Phase 4: Project Deployment (August 7 - August 16)**

Tasks:

1. Frontend Server Deployment
   1. Prepare build and deployment scripts for React
   2. Set up hosting for the WeChat Mini Program and website
   3. Configure CDN for static asset
2. Backend Server Deployment
3. Set up and configure the local server with CPU and large memory
4. Install and configure necessary software (e.g., Django, Redis)
5. Deploy the Django application on the server
6. Ensure server security and firewall settings (If time available)
7. Model Deployment
8. Set up the environment for GPU usage
9. Install and configure CUDA and cuDNN libraries
10. Deploy Llama model on two RTX 3090 GPUs
11. Test model performance and optimization (If time available)
12. Database Deployment
13. Choose and configure a cloud database service (e.g., Huawei GaussDB)
14. Migrate local database to cloud database
15. Set up automated backups and monitoring (If time available)
16. Ensure database security and compliance
17. Integration Testing
18. Test end-to-end integration of frontend, backend, and database
19. Conduct load testing and performance tuning
20. Resolve any integration issues
21. Final Preparations
22. Develop user documentation and support materials
23. Train support staff and administrators
24. Plan and execute a soft launch with a limited user group
25. Gather feedback and make final adjustments

**Phase 5: Post-Deployment Monitoring and Maintenance (August 17 - ongoing)**

Tasks:

1. **Project presentation (Poster/Video presentation)**
2. Monitor system performance and user feedback
3. Set up alerts and logging for server health (If time avaliable)
4. Schedule regular backups and maintenance tasks (If time avaliable)
5. Plan and implement feature updates and improvements (If time avaliable)
6. Address any bugs or issues promptly (If time avaliable)