

TECH460

Module 6

Implementation Plan

Rubric

Criteria	Total
Include problem statement slide from previous deliverable	10
Include recommended solution slide from previous deliverable	10
Work Breakdown Structure	20
Schedule	20
Solution validation	30
Solution evaluation and continuous improvement	30
Legal, ethical and cultural considerations	30
Total	150

Problem Statement

- Support Fitbit's addition of a blood pressure monitoring capability through design of a web and mobile app user interface with the following features:
 - Display blood pressure readings numerically and graphically
 - Track changes over time
 - Identify low/high readings and trends that may indicate health concerns

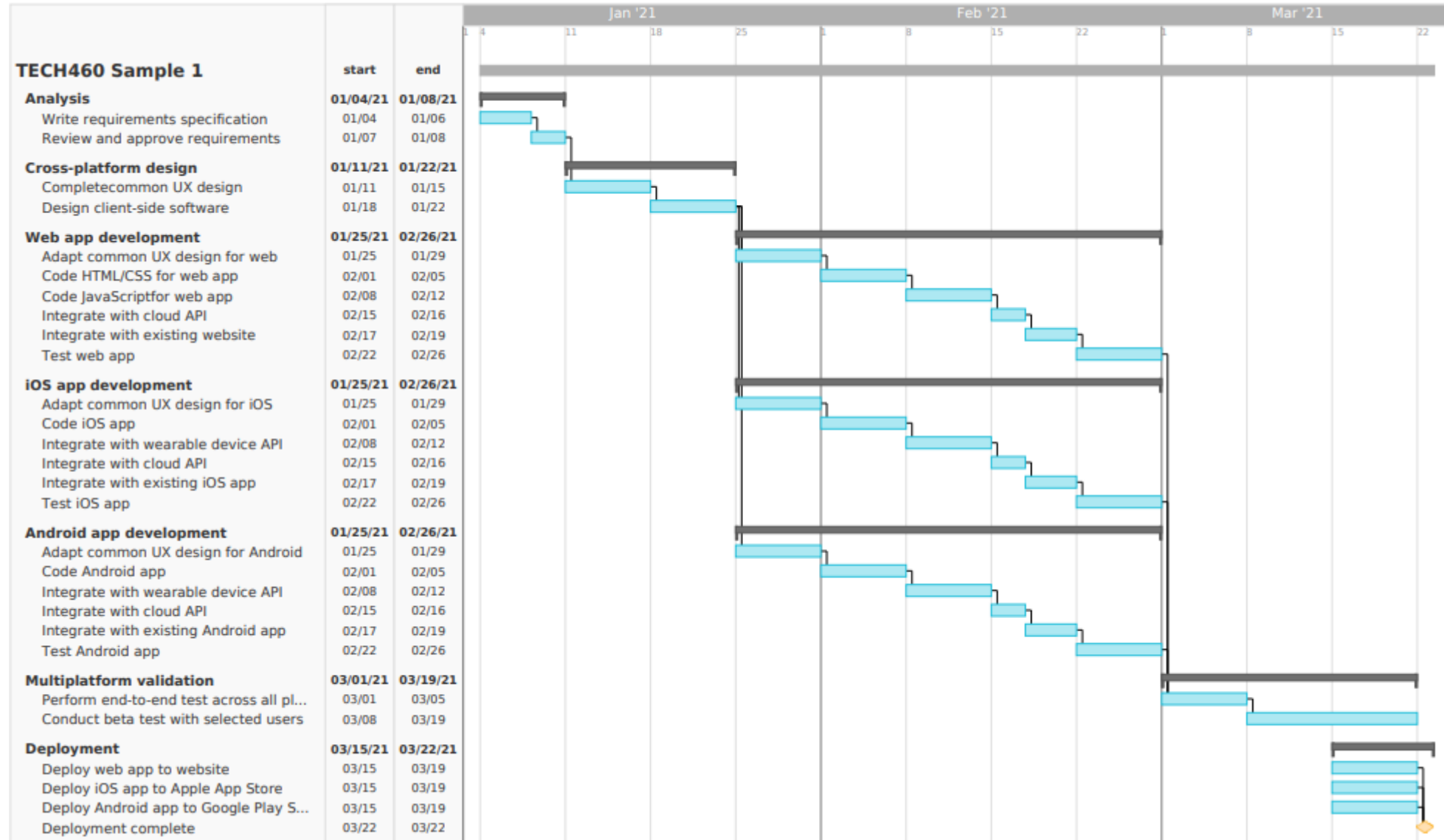
Recommended Solution

- Website plus platform-specific extensions to existing apps
- Justification
 - Integration with existing Fitbit apps is top priority
 - Users will not want to download a separate app just for BP monitoring
 - Users will want to view BP data in context with other health and fitness data
 - Value of integration justifies higher development and maintenance costs

Work Breakdown Structure

- Analysis
 - Draft requirements specification
 - Review and approve requirements
- Cross-platform design
 - Complete common UX design
 - Design client-side software
- Web app development
 - Adapt common UX design for web
 - Code HTML/CSS for web app
 - Code JavaScript for web app
 - Integrate with cloud API
 - Integrate with existing website
 - Test web app
- iOS app development
 - Adapt common UX design for iOS
 - Code iOS app
 - Integrate with wearable device API
 - Integrate with cloud API
 - Integrate with existing iOS app
 - Test iOS app
- Android app development
 - Adapt common UX design for Android
 - Code Android app
 - Integrate with wearable device API
 - Integrate with cloud API
 - Integrate with existing Android app
 - Test Android app
- Multiplatform validation
 - Perform end-to-end test across all platforms
 - Conduct beta test with selected users
- Deployment
 - Deploy web app to website
 - Deploy iOS app to App Store
 - Deploy Android app to Play Store

Schedule



Validation

- BP app functionality for each platform (web, iOS, Android) will be tested individually
- Existing website and apps will be regression tested after integration of new BP functionality
- End-to-end validation test will be performed to verify functionality across all platforms
 - Data transfer from wearable (all models) to iOS and Android apps
 - Data transfer from iOS and Android apps to cloud database
 - Manual data entry from all platforms (web, iOS, Android) to cloud database
 - Display collected data on all platforms (web, iOS, Android)
- Beta test with selected users

Evaluation and Continuous Improvement

- Ongoing monitoring and evaluation
 - Customer service requests related to the BP feature
 - Bug reports and new feature requests submitted on the Fitbit website
 - Mentions of the BP feature by customers in social media channels
 - Data traffic volumes for BP data in network
 - Response time for BP data storage and retrieval requests
 - BP data storage capacity in the database
 - Testing with new wearable device products and major product versions
 - Mobile app testing with new releases of iOS and Android operating systems
 - Web app testing with new releases of major web browsers (Chrome, Safari, Edge, Firefox, Opera)
- Continuous improvement
 - Bug reports will be evaluated, prioritized, and addressed per the standard company update cycle
 - New feature requests will be evaluated and, if adopted, incorporated in the next scheduled major release
 - Server, database, and network capacity will be upgraded as needed

Legal, Ethical and Cultural Considerations

- Legal considerations
 - Health data privacy regulations (e.g. US HIPAA)
 - Medical device regulations (e.g. US FDA)
 - Potential liability risk
 - Regulations and risk will vary from country to country
- Ethical considerations
 - Privacy protection
 - Impact on consumer health-related behaviors
- Cultural considerations
 - Attitudes toward health data sensitivity/privacy
 - Levels of concern about high blood pressure and heart health
 - Reactions of health care professionals