FINAL PROJECT: HEALTH-CARE APP

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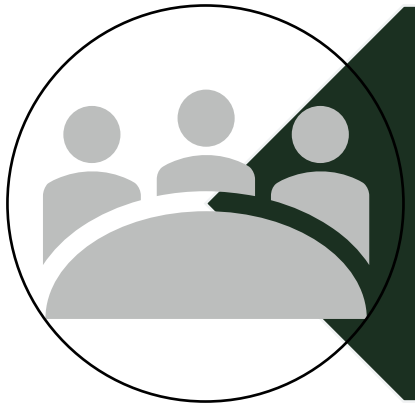
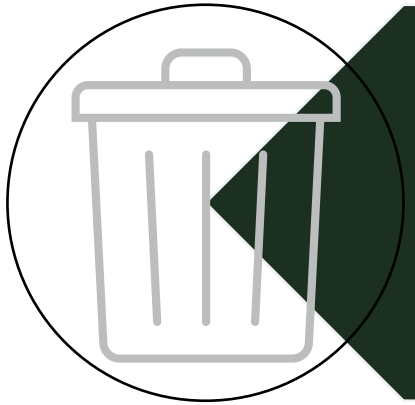
Ethan is speaking

Planning the Project



Project Integration Management Processes:

- Develop the project charter
- Develop the project management plan
- Direct and manage project work
- Manage project knowledge
- Monitor and control project work



Excluded Processes:

- Perform integrated change control
- Close the project or phase

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Project Details and Roles

Project Charter

- Objectives
- Scope
- Deliverables
- Risks
- Budget

Scrum Approach

- Project Manager is the Scrum Master
- Skills and Qualities required

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Scrum Framework and Initial Meeting

SCRUM FRAMEWORK

- Scrum Team
- Product Owner
- Product Backlog
- Sprints
- Daily Stand-ups
- Sprint Review
- Sprint Retrospective

INITIAL MEETING AND SCHEDULE

- Purpose and Attendees
- Agenda
- Location and Duration
- High-Level Schedule for Sprints 1-4

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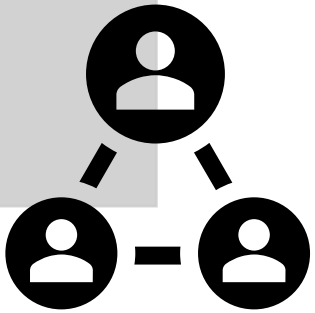
Adjusting Project Resources

Product Backlog Adjustment	Sprint Planning Adjustment	Daily Scrum Meetings
• Dynamic list of tasks, features, and enhancements. • Prioritize based on complexity, dependencies, and value. • Example: Reprioritize based on stakeholder feedback or market changes.	• Select backlog items for upcoming sprint based on capacity and priority. • Ensure effective resource allocation for critical features and tasks.	• Communicate progress, impediments, and resource needs. • Facilitate reallocation of resources or adjustment of priorities as needed.



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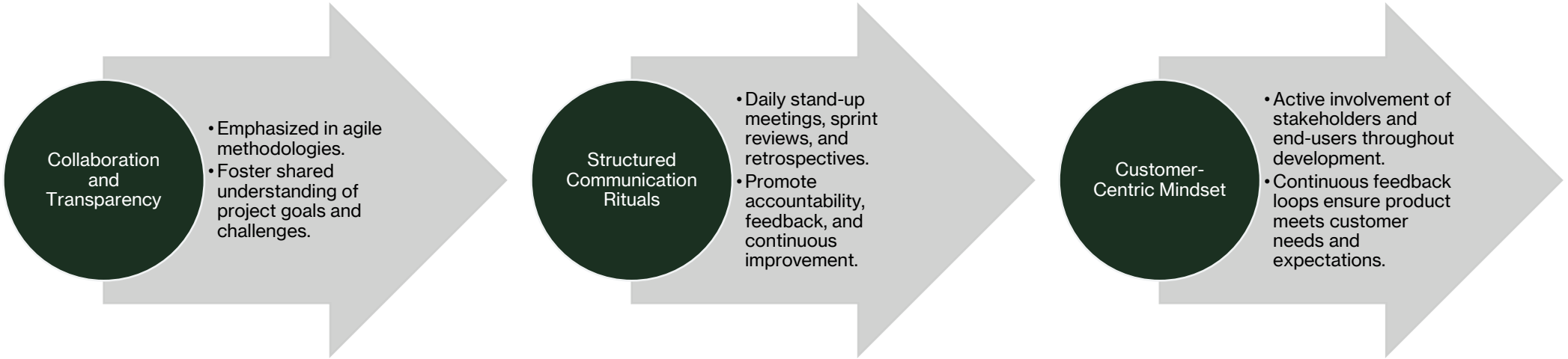
Importance of Good Communication



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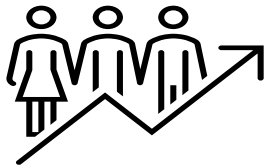
Progress Report



Scope

- Core features developed and integrated.
- Additional features like payment tracking in progress.

Time

- On schedule according to planned sprint timeline.
- Consistent sprint progress within allocated time frames.

Cost

- Within allocated budget of $350,000.
- Efficient resource utilization, no significant cost overruns.

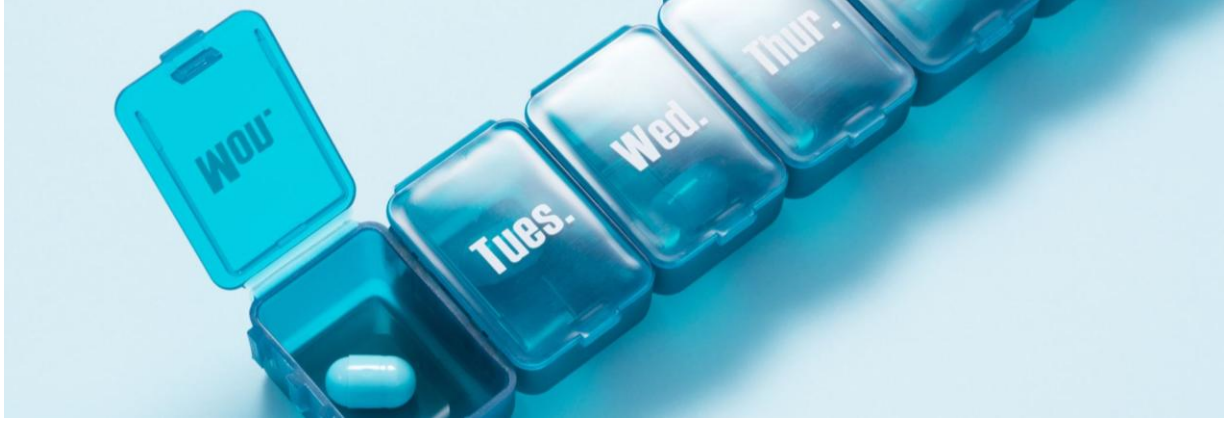
Bre is speaking

Story card on the health-care app

- The Health-care app has the ability to set medication reminders, track medical fitness information, submit online payments, and access medical address books of a specific clinic for a user. This has the potential to benefit users with low or high cholesterol, Alzheimer’s, dementia, high or low blood pressure, and more. Size: 3,3,4,2



Bre is speaking



Initial scope statement

- **Project Goals:**
- Develop a comprehensive mobile healthcare app.
- Features include medical information tracking, address book, payment functionality, medication schedule, emergency log, and access to health resources.
- Budget cap: $350,000
- Timeframe: Four months
- **User-Centric Design:**
- Simplicity is key to all processes.
- Aim for a user-friendly interface.
- **MVP Approach:**
- Initial product review at two months.
- Subsequent updates and versions planned.
- **Competition and Collaboration:**
- Competing with apps like MyChart, Medisafe, and Zocdoc.
- Involvement from developers, designers, testers, and other roles.
- Emphasis on confidentiality and user necessity.

Bre is speaking

Features of the health-care app

- Tracking of health information, links to similar health websites, resources, access to medical advice, and medical professionals
- A calendar of medications and injections being administered with the option to alert or set alarms for the user at a given time that includes the feature of updating the amount of medication left, the date of the next refill needing to be called in, and the current dosage being administered, and the pharmacy where the prescription is currently being filled at.
- An emergency information list, and an emergency clinic list that has near by emergency clinics, urgent cares, and other hospitals in the vicinity listed by the GPS software that helps give directions to these nearby facilities. The emergency information stores the emergency data specific to the patient/user but is able to be accessed by the correct personnel.
- Easy accessibility and features for the impaired such as voice to text, increased font settings, read aloud features, and more
- A payment portal where expenses can be accessed while remaining confidential, and quotes can be given for certain services

Project Schedule Management: Assigning Story Points

User Story	Programmer Est. Hours	Story Points
Patient Registration	4 hours	2
Appointment Scheduling	6 hours	3
Electronic Health Records	10 hours	5
Database Design	8 hours	3
API Integration	12 hours	5
Prescription Management	6 hours	3
Billing & Payments	8 hours	4
Reporting & Analytics	10 hours	5
User Authentication & Security	6 hours	3
Mobile Application Development	12 hours	5

MVP Development Schedule

Sprint 1: Develop Patient Registration and Appointment Scheduling

- Develop Patient Registration User Story (Story Points: 2)
- Develop Appointment Scheduling User Story (Story Points: 3)

Sprint 2: Develop Electronic Health Records and Database Design

- Develop Electronic Health Records User Story (Story Points: 5)
- Develop Database Design Technical Story (Story Points: 3)

Sprint 3: Develop Prescription Management and API Integration

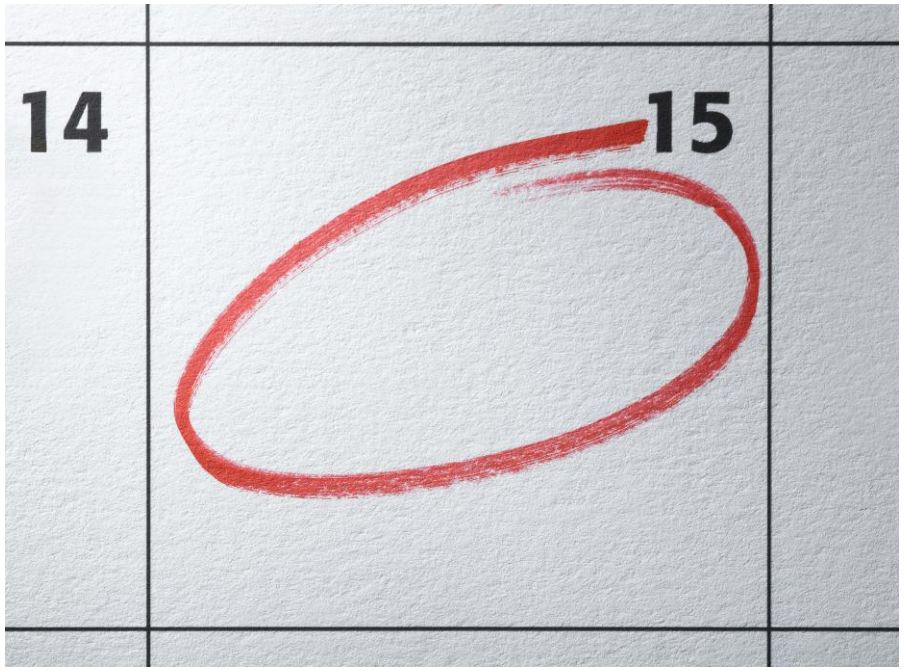
- Develop Prescription Management User Story (Story Points: 3)
- Develop API Integration Technical Story (Story Points: 5)

Sprint 4: Develop Billing and Payments and Reporting and Analytics

- Develop Billing and Payments User Story (Story Points: 4)
- Develop Reporting and Analytics User Story (Story Points: 5)

Sprint 5: Develop User Authentication and Security and Mobile App Development

- Develop User Authentication and Security User Story (Story Points: 3)
- Develop Mobile App Development User Story (Story Points: 5)



Realistic Completion of MVP

Completing the MVP within the first six weeks (three sprints) of the project may be a bit of a challenge due to the complexity and dependencies of tasks.

Unforeseen technical challenges, resource availability, and changes in project scope can impact the timeline significantly.

Tasks like API integration, database design, and mobile app development may require additional time and effort than initially estimated.

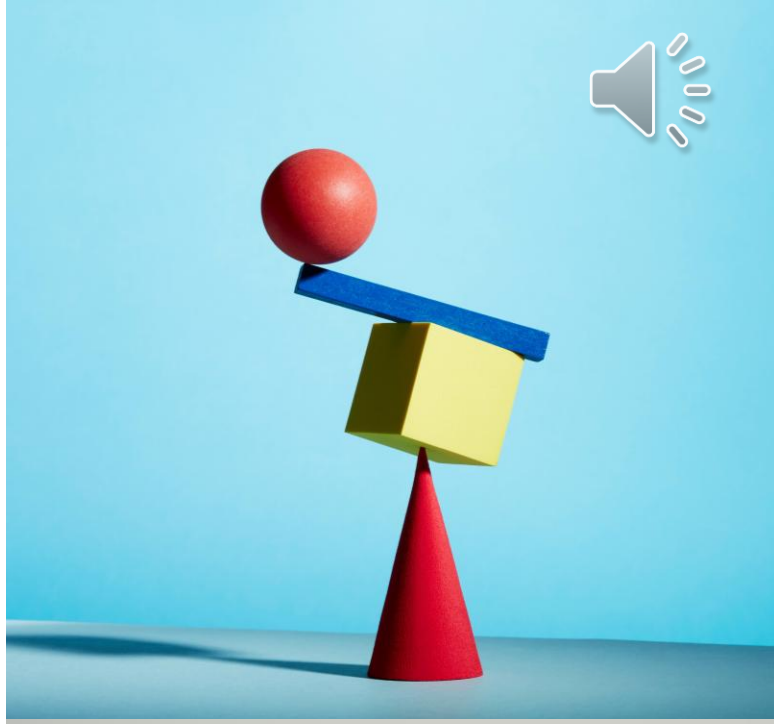
Schedule for Sprints

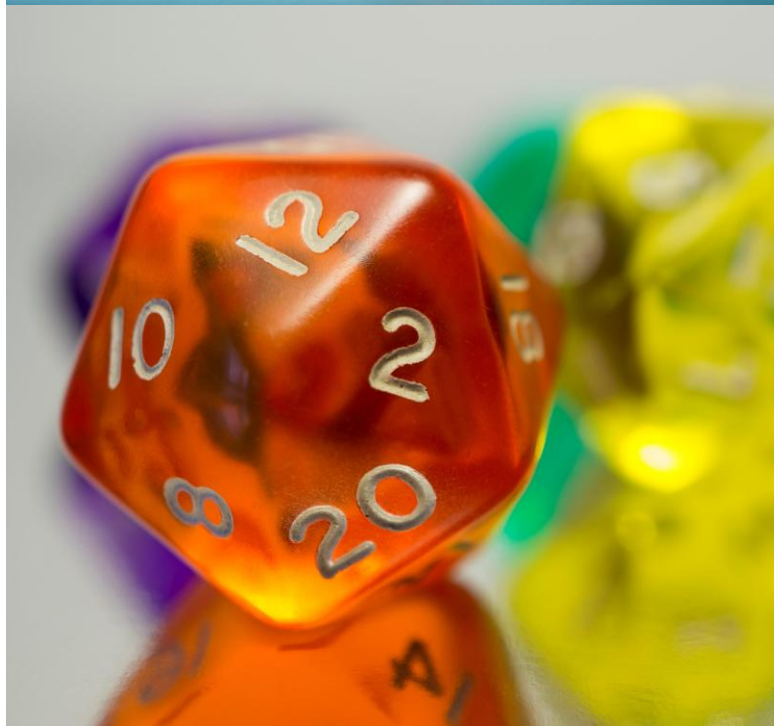
- Sprint 4 (Weeks 7-8): Payment gateway integration, user authentication, notifications, user profile management, UI/UX enhancements.
- Sprint 5 (Weeks 9-10): Social media sharing, search enhancements, user feedback system, analytics, and reporting.
- Sprint 6 (Weeks 11-12): Admin dashboard, security enhancements, user notifications, performance improvements.
- Sprint 7 (Weeks 13-14): Additional payment options, user onboarding improvements, in-app messaging, localization.
- Sprint 8 (Weeks 15-16): Reporting and analytics enhancements, role-based access control, automated email notifications, user activity logging.

Amiri is speaking

Reasons Agile Environments Lead to Greater Risks

- Lack of Documentation
- Agile prioritizes working software over documentation, making issue identification and progress tracking challenging.
- Collective Decision-Making
- Decision-making is decentralized, fostering collaboration but potentially leading to delays or disagreements.
- Iterative Delivery
- Agile projects deliver in smaller iterations, allowing early risk identification but increasing potential risks with each release.





RISK REGISTER

Probability/ Impact	High	Medium	Low
High	1	2	2
Medium	4	5	6
Low	7	8	9

RISK EVENT	LIKELIHOOD	IMPACT	MITIGATION STRATEGY
Data Breach	Medium	High	Regular security audits, implement secure authentication
Resource Limitations	High	High	Consider outsourcing, careful resource planning
Third-Party Dependency	Medium	Medium	Monitor third-party systems, create contingency plans
Software Bugs	High	Medium	Debugging before release, prompt updates, thorough testing
Time Constraints	High	High	Develop realistic timeline, monitor progress
Usability Issues	Medium	Low	Conduct user testing, gather feedback for usability improvement
Legal Compliance	Low	High	Regular policy review, compliance with regulations

Possible Changes and Risks Associated with the health-care app

FIRST ITERATION

- Priority: Basic concept meeting consumer needs.
- Risks: Development issues like usability, navigation, and bugs

SECOND ITERATION

- Priority: Improved design, enhanced features.
- Risks: New feature implementation issues (e.g., crashes, usability)

Pros and Cons of Outsourcing

Pros	Reduced cost, specialized expertise, improved efficiency
Cons	Lack of control, communication issues

Juan is speaking

Cost and Quality

- The calculated amount of story points for the project is 80 Story points.
- Based on the accountants' calculation for the average cost of a story point being $1200, The costs of the story points adds up to be about $96,000, well within the overall budget of $350,000 and the MVP Budget of $120,000

Juan is speaking

EVM Earned Value Management

Planned Value (PV)	
Actual Cost (AC)	
Earned Value (EV)	
Cost Variance (CV) = EV - AC	CV = $122,000 - $105,000 = $17,000
Schedule Variance (SV) = EV - PV	SV = $122,000 - $105,000 = $17,000
Cost Performance Index (CPI) = EV / AC	CPI = $122,000 / $105,000 = 1.162
Schedule Performance Index (SPI) = EV / PV	SPI = $122,000 / $105,000 = 1.162
EAC = BAC / CPI	EAC = $350,000 / 1.162 = 301,204.82

Juan is speaking

Fitness Tracker Feature

- Does The blood pressure reading keep a history that is easily accessible by the user? There should be an easily accessible tab to refer to in order to view previous blood pressure readings.
- Does the blood pressure reading tab only accept numbered inputs? It should not allow anything but numbers to be inputted for the blood pressure reading.
- The cholesterol level tab should be the same as the blood pressure reading tab. It should have both a history and only allow numbers to be inputted.
- The user interface should be easy to use and update with new numbers.
- Will the application have the ability to integrate with other health apps in order to transfer the information?
- Is the user's data encrypted in order to maintain user privacy?

Juan is speaking

Electronic Pillbox Feature

It should be easy to input new medications and update existing ones

Are the dosages and amount of pills properly stored? I.e does the information save properly and is it easy to update or modify?

Does the calendar work properly? It should be properly accurate to the day and should update immediately after adding a new medication or changing an existing one.

Does the alarm work properly? It should be accurate to the second and should also be a proper volume.

Can the user customize the alarm? They should be able to select from different alarm sounds as well as be able to completely mute it or have it vibrate only.

Juan is speaking

Physicians List Feature

- Is the user able to easily import the contacts they wish to import? It should be a very straightforward process for the user in order to avoid confusion.
- The user should also be able top easily manually input the information if they chose to do so.
- The list should separate physicians, health-care company, doctors, nurses, and physicians assistants and make it clear which is which.
- The User should easily be able to sort these contacts however they wish. i.e alphabetically ascending and descending, by category, etc.

Juan is speaking

Emergency List and Contact Feature

Automatic Hospital Suggestions:

- Tailored hospital recommendations based on user insurance.
- Low-income program participation for uninsured users.

Efficient Address Input:

- Smart address suggestions minimize typing effort.

Reliable GPS Interaction:

- Prompt and responsive GPS window.
- Timely updates ensure smooth navigation.

Clear Directions Options:

- Clear voice/text directions.
- Option to disable voice guidance for user preference

Juan is speaking

Payment Feature

- Do the user’s payment information save properly? It should not be necessary to be entered more than once by the user unless deleted by the user.
- Is the payment information secure? It should be properly secure and encrypted in order to protect the user’s privacy.
- Are the medical expenses and payments properly tracked and updated? The user should also be able to navigate previous payments easily and be able to sort them by age, amount, and company.
- Do the payments apply properly to bills? The user should not have to worry about whether the payment actually applied to their account and the user should also receive proper and clear confirmation that affirms this

Juan is speaking

Kanban Benefits

- The most useful property of kanban: "Measure and manage flow"
- Short project timeframe requires quick problem analysis and implementation of changes
- Importance of efficiency due to the limited four-month development window
- Swift tackling of challenges essential for project success
- Unclear project scope requires rapid issue identification and resolution
- Smooth and predictable application delivery facilitated by measuring and managing flow