Product Management Assignment - Kaushal Shastry

Problem Statement: People dying because of medical mistakes in the United States

Target Market: General public and the health care system in the United States + Heath Insurance industry

Cause of the problem: Mix-ups with the doses or types of medications administered/provided to patients

Proposed Solution: To develop a centralized digital system where the patients and the health care system can access the patients' past and current medical history and future medical needs. All the patients will be tracked by their Social Security Number

Risks involved: This system contains sensitive data of the public, hence utmost care should be taken to build a system that is not vulnerable to data breaches and uses all the necessary and latest encryption standards to safely contain user's personal data.

Compliance: As this system contains patient health information, we need to follow **HIPAA standards** while building the proposed system.

Personas within the system:

Personas	**Explanation**	**Abbreviated as**
Category A Patients	Critical Patients, need utmost care and administration	PC - A
Category B Patients	Major patients, need medium level care and administration	PC - B
Category C Patients	Minor level patients, need no to low level care and administration	PC - C
Health care Professional - A	Professionals directly attending the patients eg: Doctors directly involved with the patients	HP - A
Health care Professional - B	Professionals occasionally attending + administrating the patients. eg: Nurses, pharmacists and	HP - B
Health Insurance Representatives	Representatives from the Health Insurance Companies	HIR
Pharmacists	Pharmacists from our partner pharmacies	PHR

Product Definition: This system will be a digitized platform where all the personas will have the ability to access their concern areas and perform the necessary actions. For the MVP this product will be initially launched only for Desktop browsers, in the later phases of the product development this will be made available for Android and iOS platforms in the form of mobile apps.

Working of the system: The following are the fundamental use cases which are based on the assumption that users are already in the system and are authorized to use the system. User flows, for example logging in and authorization mechanism will be discussed later.

Use Case number	Use Case	User Action	Remarks
1	HP - A involving PC - A	When treating a PC - A patient, HP - A should 1. Compulsorily check the patient's records from the system and then only prescribe with new medications. 2. Compulsorily consult with the previous physician who has managed this patient and ask about the patient's history. 3. Update the patients' records when a new medication is being prescribed.	
2	HP - A involving PC - B	When treating a PC - B patient, HP - A should 1. Compulsorily check the patient's records from the system and then only prescribe with new medications. 2. Update the patients' records when a new medication is being prescribed.	User Action 2 from Use Case 1 is optional for this case
3	HP - A involving PC - C	When treating a PC - B patient, HP - A should 1. Update the patients' records when a new medication is being prescribed.	User Actions 1 and 2 from Use Case 1 are optional for this case
4	HP - B involving PC - A	When tending to to PC - A, HP - B should 1. Compulsorily re-check with the HP - A who has asked has asked to give dosage to the patient 2. Check within the system the latest/previous dosage the patient received 3. Update the patient's record after giving a dose	
5	HP - B involving PC - B	When tending to to PC - B, HP - B should 1. Check within the system the latest/previous dosage the patient received 2. Update the patient's record after giving a dose	User Action 1 from Use Case 1 is optional here
6	HP - B involving PC - C	When tending to to PC - C, HP - B should 1. Update the patient's record after giving a dose	User Actions 1 and 2 from Use Case 1 are optional here
7	HIR	HIRs will have access to patients history who opt to buy a health insurance package from this system	
8	PHR	PHRs will also check data of our customer before selling any medicines to them	

Note: Whenever a user action is performed it is the user's duty to update it in the system it can either be check box or in the form of basic text box.

Testing and POC: Once functionally stable, we can test the MVP at a single hospital by assisting and training the health-care professionals.

Phase 1 will only involve Health care professionals
Phase 2 will involve Health care professionals + patients
Phase 3 will involve all the personas including the health care representatives.

Each phase will span for a month, feedback and suggestions will be collected from all the personas involved in this testing + POC. Once we are comfortable with stability of the product after POC we can release it in market for everyone.

Designing of UI/UX: After the functionality for the product has been finalized, designers should create wire-frames and consult with the potential users to see if they want any change in the design. Designers should also consult Subject matter experts in the health-care community to get any suggestions/improvements. Also after the product goes live, there will be continuous cycle of A/B testing the UI/UX so that we let users decide what is best for them. As this product is aimed towards the Health Care professionals and the general public, design should be minimalistic and easy to use.

Product Version 1: The first version after testing and POC will be available only for desktop platform. There are few advantages of this, if there are any major live issues they can easily be fixed and deployed. We can learn from these mistakes and then move towards other mobile platform involving client side support. This version will be released only to partner hospitals.

Pricing: This product will be free for Health care professionals, but patients will have the options to choose between 3 packages depending on their needs.

Package name	**Price in USD per month**
Platinum package	$ 22.99
Gold package	$ 19.99
Silver package	$ 10.99

Platinum package:
1. Get up-to 4 family members in this package
2. Get 30% off a partner health insurance provider monthly premium of user's choice
3. Monthly free advice from a partner physician
4. Supported on all the platforms and 24/7 support

Gold Package:
1. Get up-to 2 family members in this package
2. Monthly free advice from a partner physician
3. Supported on all the platforms and 24/7 support

Silver Package:
1. Get up-to 2 family members in this package
2. Access to Web application via browser.
3. 24/7 support

Note: On average the American family spends around $50 on streaming services per month.

Branding: Product name is “Sustineri” which means sustainability in Latin. With a logo of a “ heartbeat line” designed to say we value our customers life. Tag-line could be: “Life is better with your loved ones”

Marketing: We will use the existing channels and social media to market the product. Also with partner health insurance companies we can leverage their customers base and on-board them into our systems by converting leads obtained from the partner health insurance companies. We can also generate leads from our partner hospitals and get potential customer base.

Selling & Support: Main channels of selling would be the leads generated via our partner hospitals and health insurance companies. Also conducting free workshops/checkups could be other way of generating leads. Visiting nursing homes could be another channel to on board potential customer.

Support can be outsourced to companies specializing in BPO and support. Given proper training and documentation to them, we can rely on them for supporting sales and customer issues.

SWOT Analysis:

Strength	Weakness
- Unique product -Strong ties with hospitals/insurance companies and pharmacies - Subscription based business model	- High Cost of maintaining ties with partners - High reliance on 3rd party lead generation for sales
Opportunity	Threats
- Building a stand alone IoT device or integrating with the existing wearable tech for patients - Potential to scale globally - Using ML/AI to predict patients health and remedying it - Tapping into the Health insurance market to get more users	- Tech giants like Amazon, Google, Microsoft etc - Data breach, giving a bad name to the product - Cheaper alternative products

Existing alternatives: There are several apps available in the AppStore/Playstore which track the intake of medicines but none of them give comprehensive details and rely heavily on patients input and not on health care professionals’ input or monitoring.

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