

Software Requirement Specification

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1. Project Description

A logging software meant to collect meaningful patient observations regarding their medication usage. The patient's relevant medical information, such as age, weight, illnesses, etc. will be collected, as will prescribed medications and treatment plans. The software will collect data for the duration of the treatment period, whether it be a period of time or indefinitely. Then, said data would be exported to be viewed when requested. Strictly Ethical.

2. Functional Requirements

FR01*	The software must enable the patient to input medical/personal information during account creation (Age, Gender, Doctor Info, ect.)
FR02*	The software must enable the patient to rate various emotions and experiences (related to their treatment regimen) with (1-10) scales
FR03	The software must enable the Doctor to be able to generate/receive a report on patient data.
FR04	The software must enable the patient to edit their account details after creation.
FR05	The software must enable the patient to create a family plan/account
FR06	The software must enable the Doctor to view patients' records and make a copy to save.
FR07	The software must enable the patient to opt into automated reports being sent to doctor of their choice
FR08	The software must enable the patient to access accessibility features: voice diction, language
FR09	The software must enable the patient to journal their experiences and feelings.
FR10	The software must enable the patient to prove if they are 18+ or approval by a parental figure/guardian for account creation.
FR11*	The software must enable the patient to be able to retrieve and display information (Weight, pain level, etc)
FR12	The software must enable the patient to accept the terms and Conditions to continue using the app.
FR13	The software must enable the patient to format their app in different views, like schedule formatting

3. Non-Functional Requirements

NFR01	Software must enable two factor authentication.
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NFR02	Software requires a database for saving login information.
NFR03	Software must be strictly ethical. User data should be kept confidential, out of reach of developers as well
NFR04	Software must enable biometric Login
NFR05	Software must push notification for reminders on when to log
NFR06	The Scale/numeric portion is required, but the journal section is not

4. Use Case Specification

<< Select **three** functional requirements and describe them in detail using use cases.>>

UC01 Name:	User account creation.
Description:	The software must enable the patient to input medical/personal information during account creation (Age, Gender, Doctor Info, ect.)
Actor:	Customer / End user / Patient
Entry condition:	The actor selects the option to register for an account.
Basic path:	<ol style="list-style-type: none"> 1. The actor is on the frontend, and has selected the "Create Account" option, they are led to a registration screen with all editable fields featuring: [PRO01] <ul style="list-style-type: none"> -- Name (editable) -- Email AND/OR Phone number (editable) -- Password (editable) -- Password Confirmation (editable) -- (Optional) Doctor reference (code)(NPI?) / (editable) [A02] -- Birthday (editable) 2. If the actor chooses to leave the email or phone empty [A01] 3. User clicks 'submit' 4. System verifies/sanitizes input [E01] [BR01] 5. The user is taken to the home screen on their new account. [PRO03] 6. Success. The use case is done.
Alternative paths:	<p>[A01] Patient does not provide an email, and just provides a phone number.</p> <ol style="list-style-type: none"> 1. A confirmation code is sent to the phone number to assure that it is valid. <p>[A02] Patient enters the NPI code</p> <ol style="list-style-type: none"> 1. This information is saved to their account and used for logging.

	<p>[A03] User already has an account and doesn't need to create a new account.</p> <p>1. User already has an account and selects the "Sign In" option. Email and password are required for log in.</p>																																			
<p>Exception paths:</p>	<p>[E01] Invalid registration information</p> <p>System displays message indicating the existence of invalid information.</p> <p>2. The use case returns to step 1 of the default path. Invalid fields are marked so the user knows what they must change.</p> <p>[E02] Invalid login information</p> <p>System displays messages indicating the existence of invalid information. [PRO2]</p> <p>2. The user is returned to step 1 of [A03] path. Invalid field is highlighted so the user knows what they must change.</p>																																			
<p>Business Rules:</p>	<p>[BR01] .</p> <ul style="list-style-type: none">• User's email is verified through an email confirmation link.• User's phone number is verified through a SMS confirmation code. <p>[BR02] .</p> <ul style="list-style-type: none">• User's email must be registered alongside the correct password.																																			
<p>Data description</p>	<table><tr><th>Name</th><th>Type</th><th>Length</th><th>Mask</th><th></th></tr><tr><td>Patient Name</td><td>String</td><td>50</td><td>—</td><td></td></tr><tr><td>Phone Number</td><td>String</td><td>10-15</td><td>(x)xxx - xxx - xxxx</td><td></td></tr><tr><td>Password</td><td>String</td><td>10-30</td><td>-</td><td></td></tr><tr><td>Email</td><td>String</td><td></td><td>xxxx@xxx.xxx</td><td></td></tr><tr><td>Age</td><td>Integer</td><td>3</td><td>xxx</td><td></td></tr><tr><td>NPI/ Reference code</td><td>Integer</td><td>10</td><td>xxxxxxxxxxx</td><td></td></tr></table>	Name	Type	Length	Mask		Patient Name	String	50	—		Phone Number	String	10-15	(x)xxx - xxx - xxxx		Password	String	10-30	-		Email	String		xxxx@xxx.xxx		Age	Integer	3	xxx		NPI/ Reference code	Integer	10	xxxxxxxxxxx	
Name	Type	Length	Mask																																	
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Prototype:	<div data-bbox="395 271 1430 1736"><div data-bbox="411 315 1414 461"><div data-bbox="448 376 1342 427">www.strictlyethicaldrugmonitoring.com</div><div data-bbox="1358 383 1390 421">X</div></div><div data-bbox="504 577 1182 640">Name: <input data-bbox="671 573 1179 640" type="text"/></div><div data-bbox="515 658 1182 721">Email: <input data-bbox="671 654 1179 721" type="text"/></div><div data-bbox="499 734 1182 797">Phone: <input data-bbox="671 730 1179 797" type="text" value="(xxx) xxx-xxxx"/></div><div data-bbox="440 815 1182 878">Password: <input data-bbox="671 810 1179 878" type="password"/></div><div data-bbox="488 891 1182 954">Retype: <input data-bbox="671 887 1179 954" type="password"/></div><div data-bbox="440 972 1182 1034">NPI Code: <input data-bbox="671 967 1179 1034" type="text"/></div><div data-bbox="539 1052 1182 1115">Age: <input data-bbox="671 1048 1179 1115" type="text"/></div><div data-bbox="1206 987 1278 1025">? >></div><div data-bbox="722 1137 1134 1182">Not 18? Click here >></div><div data-bbox="810 1301 967 1346">SUBMIT</div><div data-bbox="424 1458 1126 1559">*Must include either email or phone *NPI code is optional</div></div> <div data-bbox="392 1794 520 1839">[PRO02]</div>
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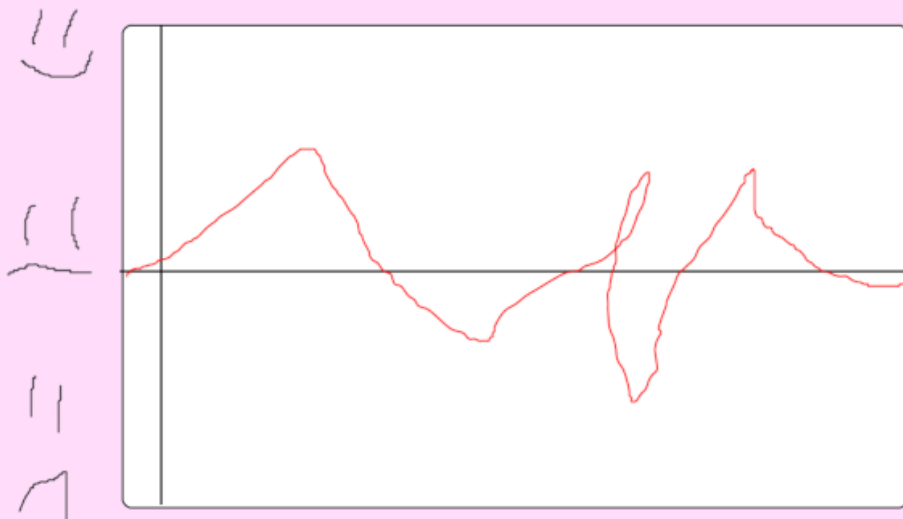
<input type="text" value="www.strictlyethicaldrugmonitoring.com"/>		X
Name:	<input type="text" value="Joe Drug"/>	
Email:	<input type="text" value="Joedrug@gmail.com"/>	
Phone:	<input type="text" value="(xxx) xxx-xxxx"/> Empty	
Password:	<input type="text" value="1234"/>	
Retype:	<input type="text" value="1243"/> Wrong password	
NPI Code:	<input type="text" value="293919"/> Invalid Code	?>>
Age:	<input type="text" value="16"/> Must be 18+	
SUBMIT		
<p>*Must include either email or phone *NPI code is optional *Invalid fields: Phone, Password Confirmation, NPI, Age</p>		

[PRO03]

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Welcome Joe Drug! >

~Links to stuff will go here



~All the business stuff, contact, links, logo, etc. Down here.

UC02 Name:	Treatment Regimen Logging
Description:	The software must enable the patient to rate various emotions and experiences (related to their treatment regimen) with (1-10) scales
Actor:	Customer / User / Patient
Entry condition:	Selecting the option to log information
Basic path:	<ol style="list-style-type: none"> 1. User selects the calendar 2. The system presents the regimen logging screen 3. Users are prompted everyday to denote the duration of their treatment regimen. 4. Users are prompted with several 1-10 scales regarding their current pain level, quality of life, satisfaction with the current regimen, etc [A02][PRO02]. 5. (Optional) Patient can write in the 'Additional observations' field [A01] 6. (Optional) Patient can choose to log their current weight [A03] 7. Patient submits the current log [E01][BR01][BR02][PRO02] 8. System returns to the home screen.
Alternative paths:	<p>[A01] Users are prompted to type/write any additional details regarding their medication usage.</p> <ol style="list-style-type: none"> 1. User writes any additional observations that they wish to include in the corresponding field. 2. This entry is saved with the log for that day. <p>[A02] User forgets or declines to fill out the scales.</p> <ol style="list-style-type: none"> 1. Log for that day is saved as blank/incomplete. <p>[A03] User is prompted to log their current weight</p> <ol style="list-style-type: none"> 1. Users record their weight to the corresponding field. 2. This entry is saved with the log for that day.
Exception paths:	<p>[E01] Log is incomplete upon submission attempt</p> <ol style="list-style-type: none"> 1. User is alerted with a notice that the log is not complete. 2. The corresponding unfinished fields are highlighted.

	3. If the user still submits the incomplete submission then the use case returns to base case step 5.																																							
Business Rules:	[BR01] Sensitive information must be protected. [BR02] User must complete the scale before submitting																																							
Data description	<table><tr><th>Name</th><th>Type</th><th>Length</th><th>Mask</th><th></th></tr><tr><td>Add. observations</td><td>String</td><td>1000</td><td>-</td><td></td></tr><tr><td>Pain level</td><td>Integer</td><td>2</td><td>-</td><td></td></tr><tr><td>Quality of life</td><td>Integer</td><td>2</td><td>-</td><td></td></tr><tr><td>Regimen satisfaction</td><td>Integer</td><td>2</td><td>-</td><td></td></tr><tr><td>Weight</td><td>Integer</td><td>3</td><td>-</td><td></td></tr><tr><td>Social quality</td><td>Integer</td><td>2</td><td>-</td><td></td></tr></table>					Name	Type	Length	Mask		Add. observations	String	1000	-		Pain level	Integer	2	-		Quality of life	Integer	2	-		Regimen satisfaction	Integer	2	-		Weight	Integer	3	-		Social quality	Integer	2	-	
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Social quality	Integer	2	-																																					
Prototype:	[PRO01]																																							

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Month:

October>

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1✓	2✓	3✓	4✓	5✓
6✓	7✓	8	9	10✓	11✓	12✓
13✓	14✓	15✓	16✓	17✓	18✓	19✓
20✓	21✎	22	23	24	25	26
27	28	29	30	31		

Go to log retrieval screen >>

[PRO02]

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1Pain Level10

1Quality Of Life10

1Regimen Satisfaction10

1Social Quality10

* Weight:

*Additional Observations / Journal




Submit >>

* - Optional Fields




[PRO02]

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1 Pain Level 10






1 Quality Of Life 10



1 Regimen Satisfaction 10



1 Social Quality 10



* Weight: 150

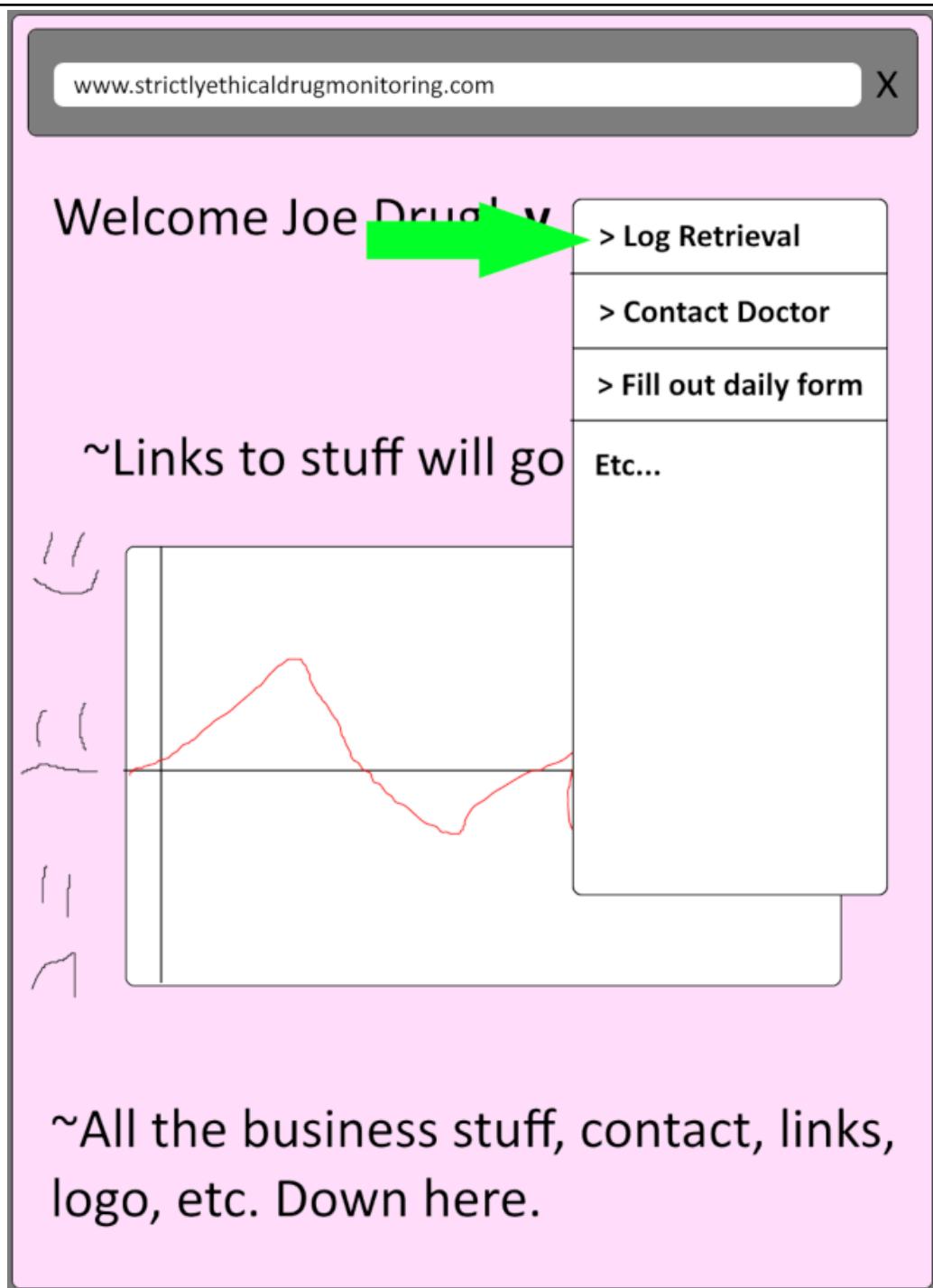
* Additional Observations / Journal **Submit >>**

My prescription isn't having much of an effect on me.

* - Optional Fields

UC03 Name:	Patient Log Retrieval
Description:	The software must enable the patient to be able to retrieve and display information (Weight, pain level, etc)
Actor:	Customer/ Patient / user
Entry condition:	Patient navigates to the log retrieval tab. [PRO01]
Basic path:	<ol style="list-style-type: none"> 1. The user selects a month from a dropdown list. 2. The user is presented with a month calendar, and the ability to select a date range from it. [PRO02][A01][A03][E01][E02][E03] 3. The system displays the average of the logged fields for that range, as well as a line graph denoting the change over time of a given field. [A02] 4. The patient selects a specific metric 5. The system displays a long term view of the selected metric [PRO03]
Alternative paths:	<p>[A01] If the patient wants to choose different date ranges to display (rather than monthly view)</p> <ol style="list-style-type: none"> 1. Patient selects date range option 2. Patient inputs start and end dates 3. System retrieves and displays date range information <p>[A02] Patient selects a specific metric</p> <ol style="list-style-type: none"> 1. The line graph for that specific metric and date range is displayed. <p>[A03] Patient selects a specific date on the calendar</p> <ol style="list-style-type: none"> 1. The log for that date is displayed if one is available
Exception paths:	<p>[E01] User selects the current date, if there is no data logged. The user selects the current day to retrieve the log but nothing has been logged for the day.</p> <ol style="list-style-type: none"> 1. The user is prompted to log for the day <p>[E02] User selects a date that has no data logged. The user selects a date with no data to retrieve.</p> <ol style="list-style-type: none"> 1. An error message is displayed and they are returned to step 1.

	[E03] User selects a date that hasn't occurred. 1. An error message is displayed and they are returned to step 1.																													
Business Rules:	[BR01] Date must be presented in a user-friendly way. (Monthly, weekly, yearly display) [BR02] Sensitive information must be protected. [BR03]																													
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Name	Type	Length	Mask																											
Description	String	1000	-																											
Ratings	Integer	11	N/A 1 2 3 4 5 6 7 8 9 10																											
Date	Date	10	YYYY-MM-DD																											
Time	Time	8	HH-MM AM/PM																											
Prototype:	[PRO01]																													



[PRO02]

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Log Retrieval for Joe Drug

Select Month: > October

MONTH: October

SUN	MON	TUES	WED	THU	FRI	SAT
	X	X	X	X	X	

Please select a date or range of dates.

Retrieve logs >

[PRO03]

