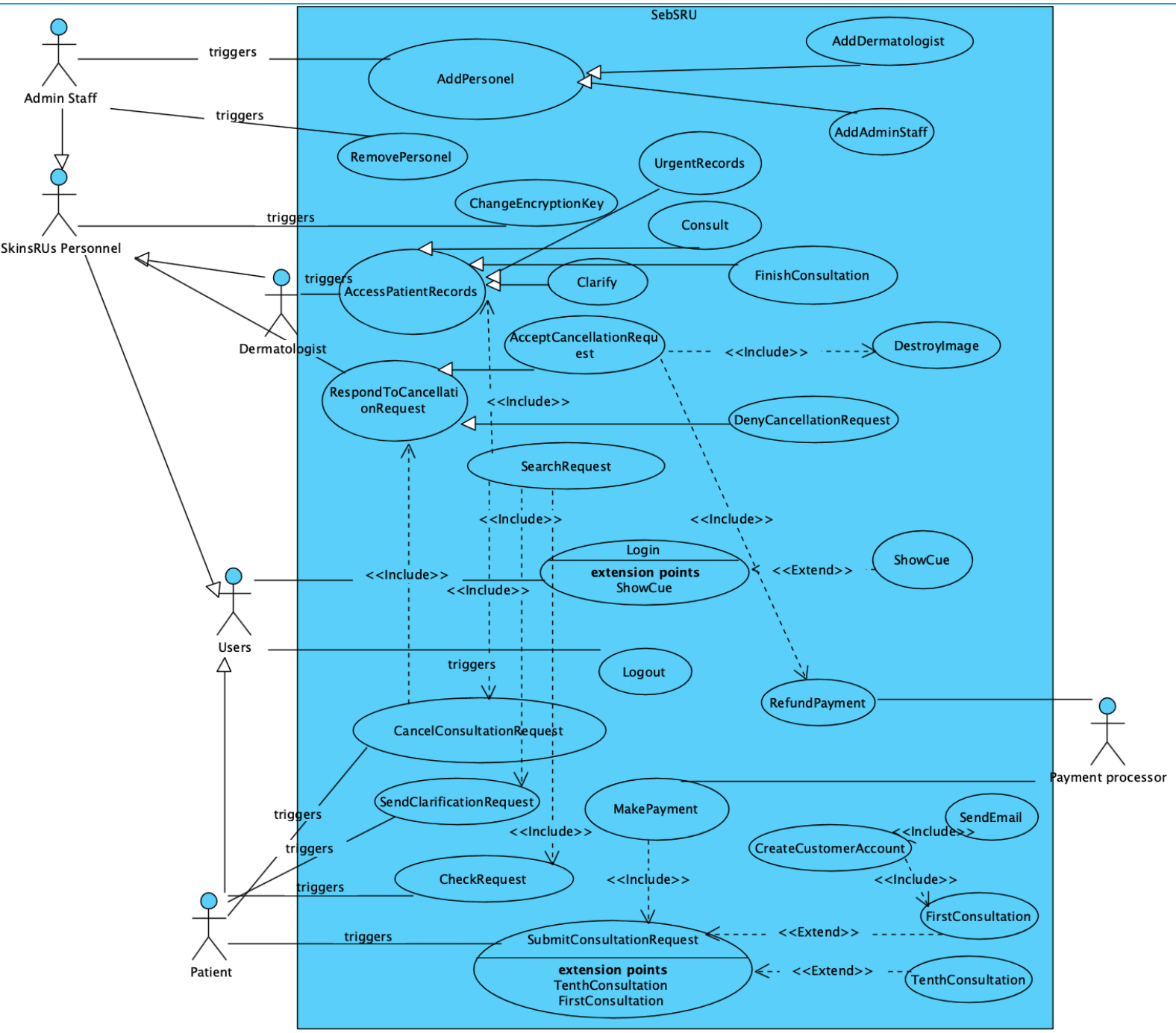
Question 1

Requirement ID: 1	Requirement Type: FR	Event/Use Case #2 (sendConsultationRequest)
Description: The system should be available to send consultation requests		
Rationale: WebSRU is a web app, that lets people with skin problems to get consultation about their skin problems by sending a consultation request that can include pictures and text to a dermatologist.		
Source: WebSRU initial statement of requirements.		
Fit Criteria: A test to create a customer account, a test to create a dermatologist or an admin account, a test to send a consultation request with the created customer account with valid data and then a test to send a consultation request with the created customer account with invalid data.		
Customer Satisfaction: 5	**Customer Dissatisfaction: 5**	
Priority: Essential	**Conflicts:** None	
Supporting Material: WebSRU initial statement of requirements.		Volere Source: Atlantic Systems Guild
History: A new requirement.		

Requirement ID: 2	Requirement Type: NFR	Event/Use Case N/A
Description: The system shall be secure		
Rationale: WebSRU is a software systems which stores sensitive data about its customers, we keep our pictures encrypted but encryption keys still could be stolen.		
Source: WebSRU initial statement of requirements and relevant regulations on storing sensitive data.		
Fit Criteria: The system is complaint with ISO 27001/ISO27005		
Customer Satisfaction: 4	**Customer Dissatisfaction: 3**	
Priority: Highly important	**Conflicts:** None	
Supporting Material: Relevant regulations in the UK.		Volere Source: Atlantic Systems Guild
History: A new requirement.		

Question 2

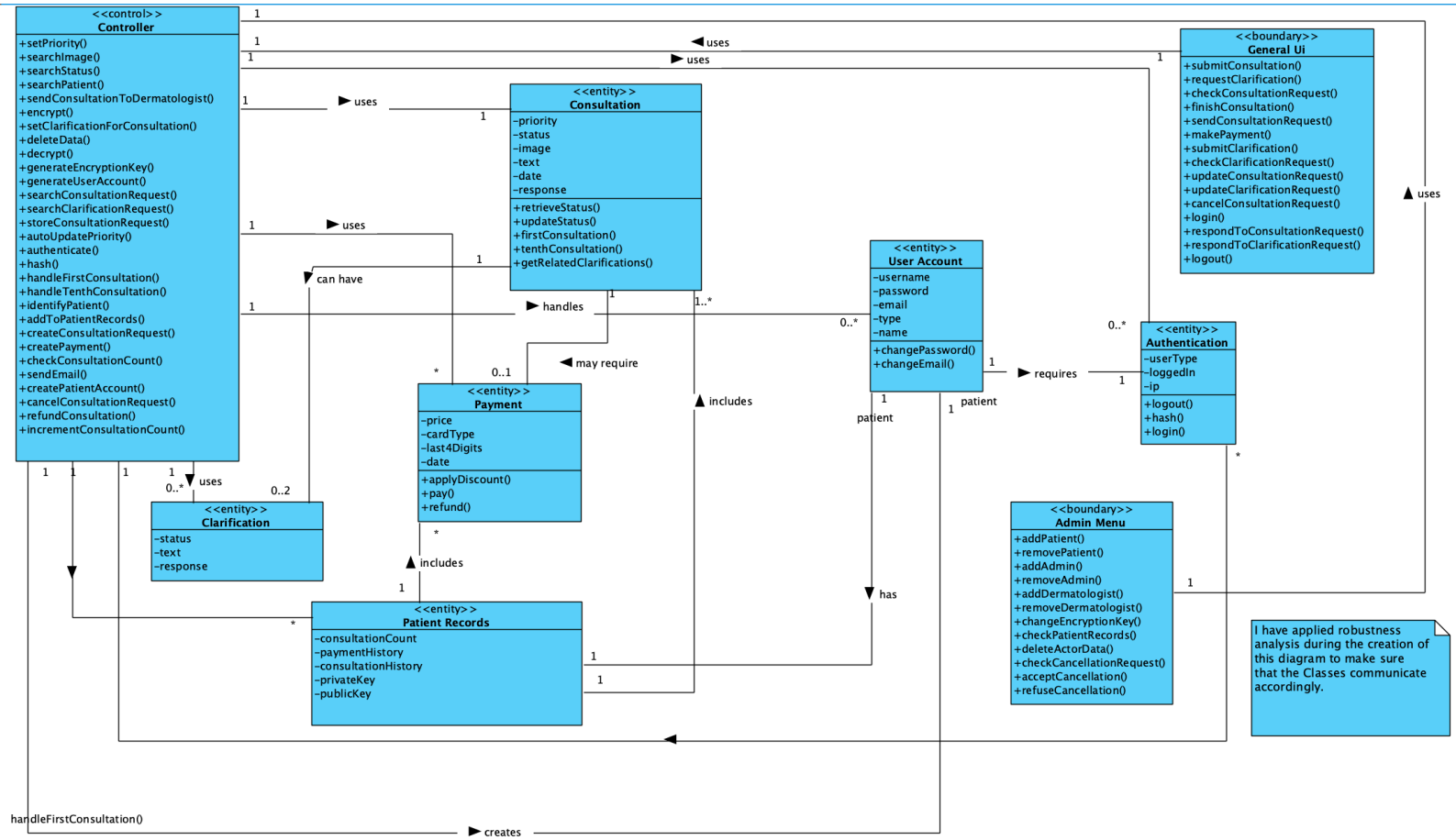

SebSRU
Admin Staff
triggers
AddPersonel
AddDermatologist
AddAdminStaff
triggers
RemovePersonel
UrgentRecords
ChangeEncryptionKey
Consult
SkinsRUs Personnel
triggers
Clarify
FinishConsultation
triggers
AccessPatientRecords
Dermatologist
AcceptCancellationRequest
<<Include>>
DestroyImage
RespondToCancellationRequest
<<Include>>
DenyCancellationRequest
SearchRequest
<<Include>>
<<Include>>
Login
extension points
ShowCue
<<Extend>>
ShowCue
<<Include>>
<<Include>>
Users
triggers
Logout
RefundPayment
CancelConsultationRequest
Payment processor
SendClarificationRequest
MakePayment
SendEmail
triggers
triggers
<<Include>>
<<Include>>
CreateCustomerAccount
CheckRequest
<<Include>>
triggers
<<Include>>
FirstConsultation
Patient
triggers
SubmitConsultationRequest
<<Extend>>
extension points
TenthConsultation
FirstConsultation
<<Extend>>
TenthConsultation

Question 3

Use Case: SubmitConsultationRequest
ID: 97
Description: The patient submits a consultation request that includes text and pictures related to their skin disease to get feedback regarding it from a dermatologist. If it is the first time they are getting consultation a %50 discount should apply and every 10th consultation should be free of charge.
Primary Actors: User
Secondary Actors: Payment Processor
Preconditions: The secondary actor (payment system) should be up. If the primary actor has an account, they should be logged in.
Main Flow: ● Primary actor (Patient) submits a consultation request. ● Extension points: FirstConsultation, 10thConsultation. ● Primary Actor writes a consultation request with text and pictures related to their skin disease. ● Primary actor gets forwarded to a payment processor. ● Primary actor makes a payment. ● System encrypts the created consultation request and stores it. ● System increments the total consultations patient has requested. ● System sends the request to a dermatologist and stores the consultation request.
Postconditions: Primary actor starts waiting for a response.
Alternative Flows: ● Primary actor is not logged in & does not have an account. ● Primary actor send a consultation request. ● The system creates a new customer account and makes a %50 discount. ● Everything goes on from the 3rd step of the main flow. ● This is the tenth consultation request of the primary actor. ● The actor writes the consultation request and submits it. ● Everything goes on from the 6th step of the main flow.

Question 4

a) && b.3)



b.1)

NOUN VERB ANALYSIS

"The dermatologists should be able to login securely and access patient records with outstanding consultation/clarification requests. The system will automatically decrypt the images a dermatologist is trying to access (using the current encryption key)".

Noun Verb

"The dermatologists should be able to login securely and access patient records with outstanding consultation/clarification requests. The system will automatically decrypt the images a dermatologist is trying to access (using the current encryption key)".

Nouns: System, Dermatologists, Patient Records, Consultation/Clarification requests, Images, Encryption key.

System (Class, Attribute, Neither?) - Neither

Dermatologist (Class, Attribute, Neither?) - Class

Patient Records (Class, Attribute, Neither?) - Class

Consultation/Clarification Requests (Class, Attribute, Neither?) - Class

Images (Class, Attribute, Neither?) - Attribute

Encryption Key (Class, Attribute, Neither?) - Attribute

Verbs: Login, Access, Decrypt.

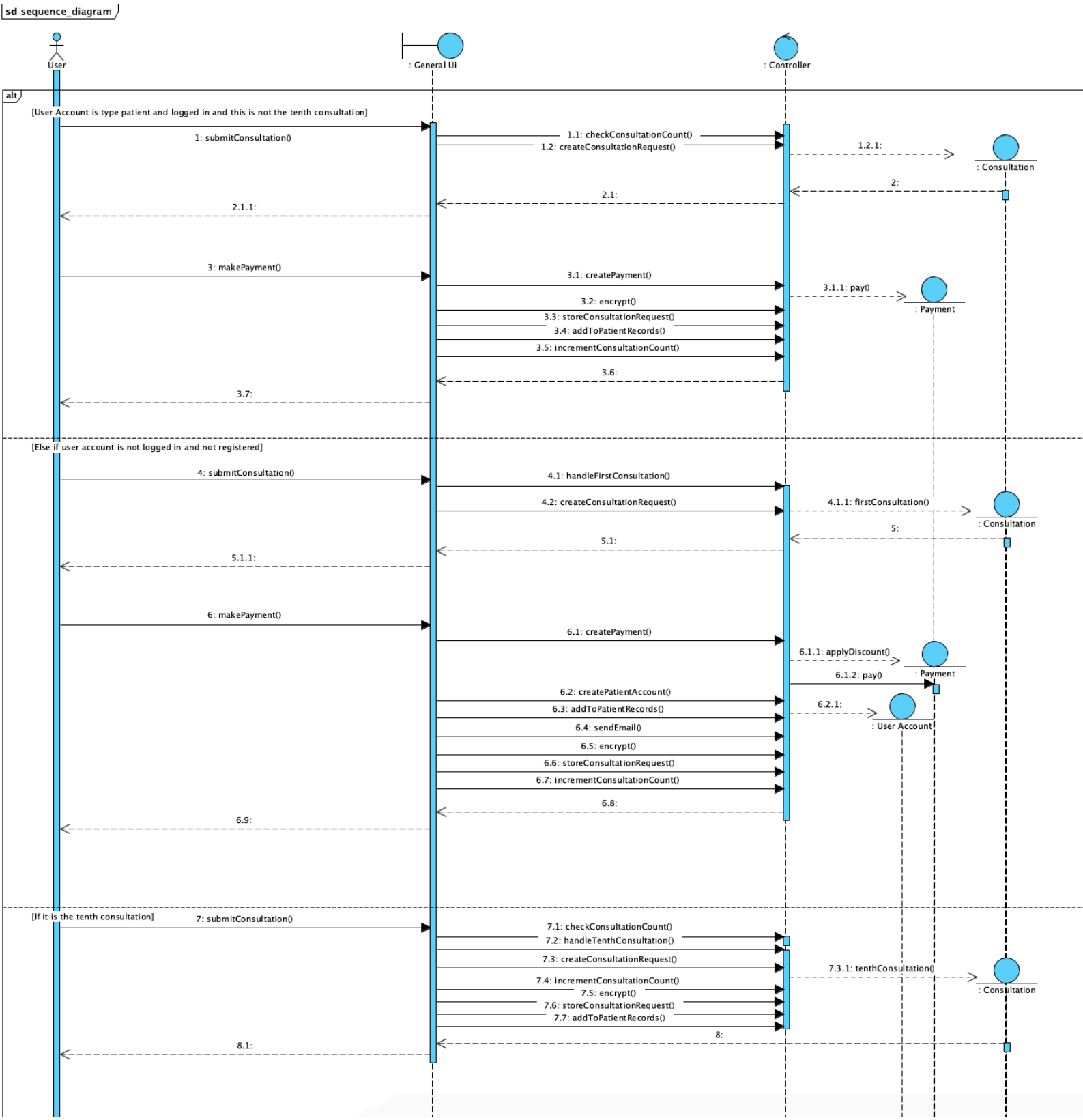
b.2)

User Account	
• create account • delete account • change password • change email • login • logout • have patient records • have a type • authenticate • limit the access to admin menu • limit the access to patient records • limit the access to consultations	• Controller • Patient Records • Authentication

Consultation	
• finish consultation • request clarification • check consultation request • send consultation request • retrieve status • update status • update consultation request • cancel consultation • handle first consultation • handle tenth consultation	• Controller • Clarification • Payment • Patient Records

Payment	
• pay • save payment data	• Consultation • Patient Records • Controller

Question 5


sd sequence_diagram
User
: General Ui
: Controller
alt
[User Account is type patient and logged in and this is not the tenth consultation]
1: submitConsultation()
1.1: checkConsultationCount()
1.2: createConsultationRequest()
1.2.1:
: Consultation
2:
2.1:
2.1.1:
3: makePayment()
3.1: createPayment()
3.1.1: pay()
: Payment
3.2: encrypt()
3.3: storeConsultationRequest()
3.4: addToPatientRecords()
3.5: incrementConsultationCount()
3.6:
3.7:
[Else if user account is not logged in and not registered]
4: submitConsultation()
4.1: handleFirstConsultation()
4.2: createConsultationRequest()
4.1.1: firstConsultation()
: Consultation
5:
5.1:
5.1.1:
6: makePayment()
6.1: createPayment()
6.1.1: applyDiscount()
: Payment
6.1.2: pay()
6.2: createPatientAccount()
6.3: addToPatientRecords()
6.2.1:
: User Account
6.4: sendEmail()
6.5: encrypt()
6.6: storeConsultationRequest()
6.7: incrementConsultationCount()
6.8:
6.9:
[If it is the tenth consultation]
7: submitConsultation()
7.1: checkConsultationCount()
7.2: handleTenthConsultation()
7.3: createConsultationRequest()
7.3.1: tenthConsultation()
: Consultation
7.4: incrementConsultationCount()
7.5: encrypt()
7.6: storeConsultationRequest()
7.7: addToPatientRecords()
8:
8.1: