IN2013 Coursework

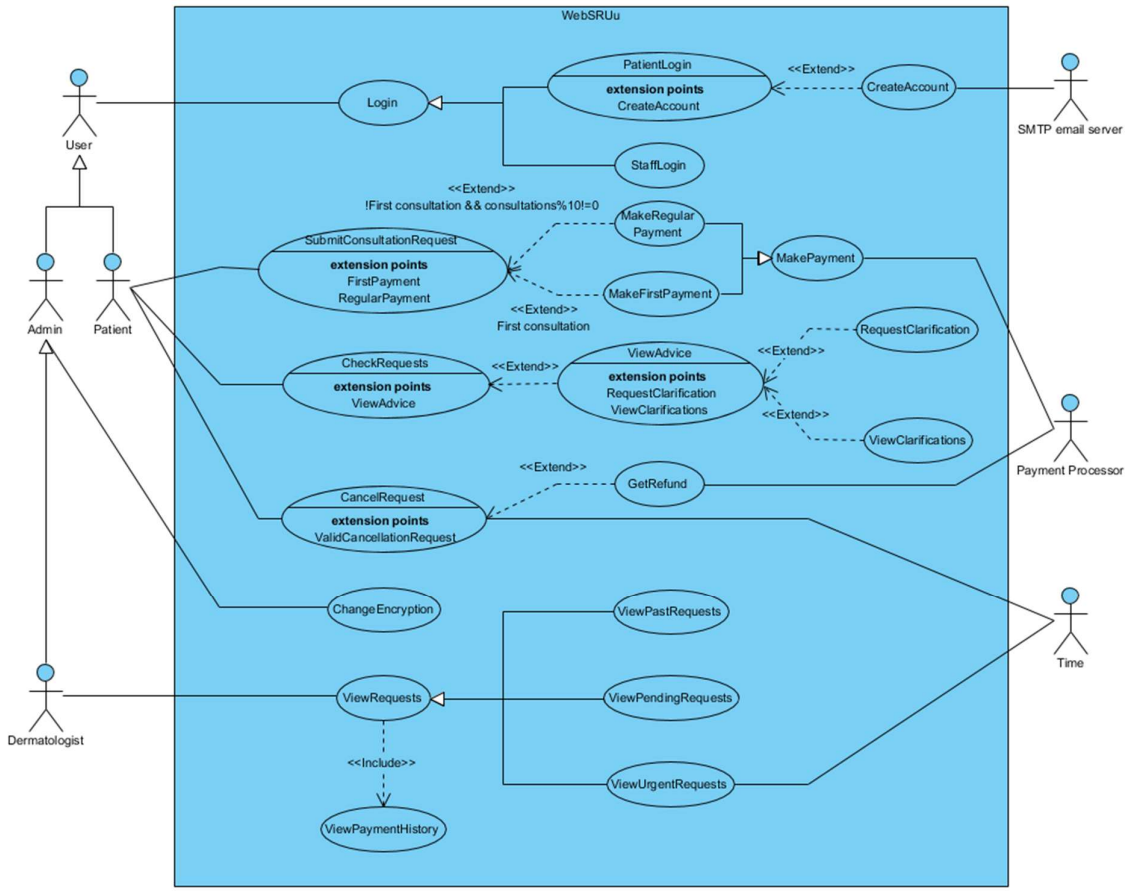
James Brown (170006469)

Question 1)

Requirement ID: 1	**Requirement Type: FR**	**Event/Use Case #2 (ViewNewRequests)**
Description: The product shall identify all unanswered consultation requests made by a patient		
Rationale: Dermatologists need to know what requests have yet to be answered		
Source: WebSRU initial statement of requirements by SkinsRUs		
Fit Criteria: Unanswered consultation requests are those where the consultation request and any further clarification requests have yet to be answered		
Customer Satisfaction: 5	**Customer Dissatisfaction: 5**	
Priority: Essential	**Conflicts:** None	
Supporting Material: WebSRU initial statement of requirements by SkinsRUs	Volere Source: Atlantic Systems Guild	
History: November 1, 2019 Passed Quality Gateway review		

Requirement ID: 2	**Requirement Type: NFR**	**Event/Use Case N/A**
Description: The system shall be secure		
Rationale: WebSRU contains sensitive personal information.		
Source: WebSRU initial statement of requirements by SkinsRUs and UK Data Protection Act 2018 (and other relevant legislation)		
Fit Criteria: The development and use of the system is compliant with relevant legal and legislative frameworks		
Customer Satisfaction: 3	**Customer Dissatisfaction: 4**	
Priority: Highly Important	**Conflicts:** None	
Supporting Material: WebSRU initial statement of requirements by SkinsRUs, Relevant UK regulations	Volere Source: Atlantic Systems Guild	
History: November 1, 2019 Passed Quality Gateway review		

Question 2)


WebSRUu
User
Admin
Patient
Dermatologist
Login
PatientLogin
extension points
CreateAccount
<<Extend>>
CreateAccount
SMTP email server
StaffLogin
<<Extend>>
!First consultation && consultations%10!=0
MakeRegular Payment
MakeFirstPayment
MakePayment
SubmitConsultationRequest
extension points
FirstPayment
RegularPayment
<<Extend>>
First consultation
RequestClarification
ViewAdvice
extension points
RequestClarification
ViewClarifications
<<Extend>>
<<Extend>>
<<Extend>>
CheckRequests
extension points
ViewAdvice
<<Extend>>
ViewClarifications
Payment Processor
<<Extend>>
GetRefund
CancelRequest
extension points
ValidCancellationRequest
ChangeEncryption
ViewPastRequests
Time
ViewRequests
ViewPendingRequests
<<Include>>
ViewUrgentRequests
ViewPaymentHistory

Question 3)

Use case: SubmitConsultationRequest
ID: 1
Brief description: Request a new consultation, including textual description and image of skin condition.
Primary actors: Patient
Secondary actors: N/A
Preconditions: 1. A valid user is logged in 2. User is registered as a patient
Main flow: 1. The use case begins when the patient selects “Submit Consultation Request” 2. WHILE the Patient’s request details have not been entered 2.1. The system asks the patient to add a textual description of their condition and attach a photo of the affected area 2.2. The system validates the patient’s request Extension point: firstPayment Extension point: regularPayment 3. The system gives the consultation a unique ID 4. The patient’s consultation request is added to the server
Postconditions: 1. A consultation request has been made and added to the server
Alternative flows: TextDescriptionMissing ImageMissing Cancel

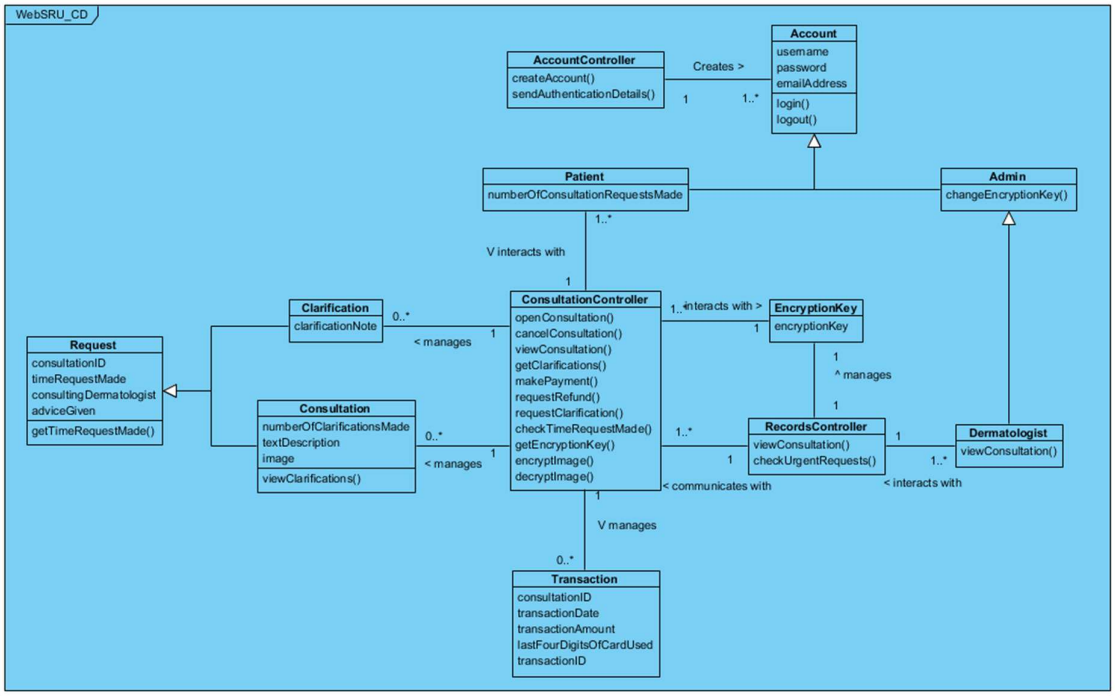
Alternative flow: SubmitConsultationRequest:TextDescriptionMissing
ID: 1.1
Brief description: The system informs the patient they are lacking a textual description of their condition
Primary actors: Patient
Secondary actors: N/A
Preconditions: 1. The patient has not entered a text description of their condition
Alternative flow: 1. The alternative flow begins after step 2.2. of the main flow 2. The system informs the patient that they have not entered a textual description of their condition
Postconditions: N/A

Alternative flow: SubmitConsultationRequest:ImageMissing
ID: 1.2
Brief description: The system informs the patient they have not attached an image of their condition
Primary actors: Patient
Secondary actors: N/A
Preconditions: 1. The patient has not submitted a photo of their condition
Alternative flow: 1. The alternative flow begins after step 2.2 of the main flow 2. The system informs the patient that they have not submitted an image of their condition
Postconditions: N/A

Alternative flow: SubmitConsulatationRequest:Cancel
ID: 1.3
Brief description: The patient cancels their submission and exits the consultation request page
Primary actors: Patient
Secondary actors: N/A
Preconditions: 1. The patient has selected “cancel request”
Alternative flow: 1. The alternative flow begins during the while loop in step 2 2. The system exits the Consultation Request page
Postconditions: 1. The patient is no longer on the Consultation Request page

Question 4)

a)



b.1)

Noun	Verb
Dermatologists	Login
Patient records	Decrypt
Consultation requests	
Clarification requests	
Images	
Encryption key	

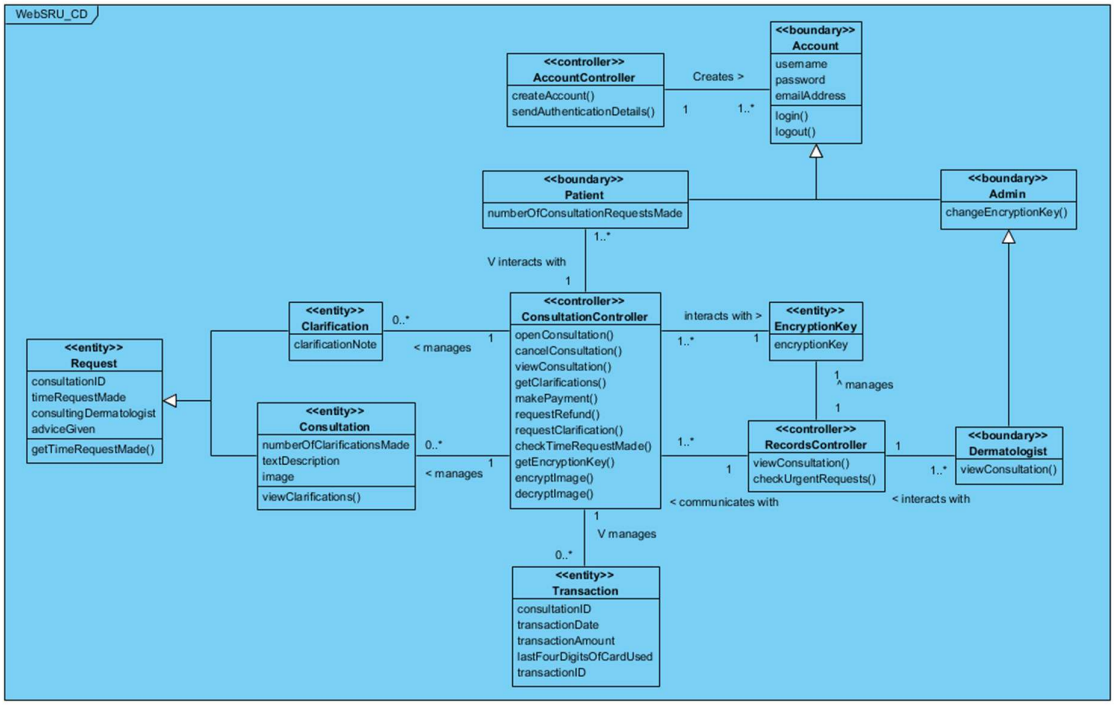
b.2)

Transaction	
Description: A record of a transaction that has been made	
Attributes:	
Name	Description
consultationID	Connects the transaction to its relevant consultation request
transactionDate	The date and time the transaction took place
transactionAmount	The amount the transaction was for
lastFourDigitsOfCardUsed	The last for digits of the card used in the transaction
transactionID	A unique identifier given by the payment processor for if the patient wants a refund
Responsibilities:	
Name	Collaborator
Provide transaction ID	Patient
Provide transaction details	Dermatologist

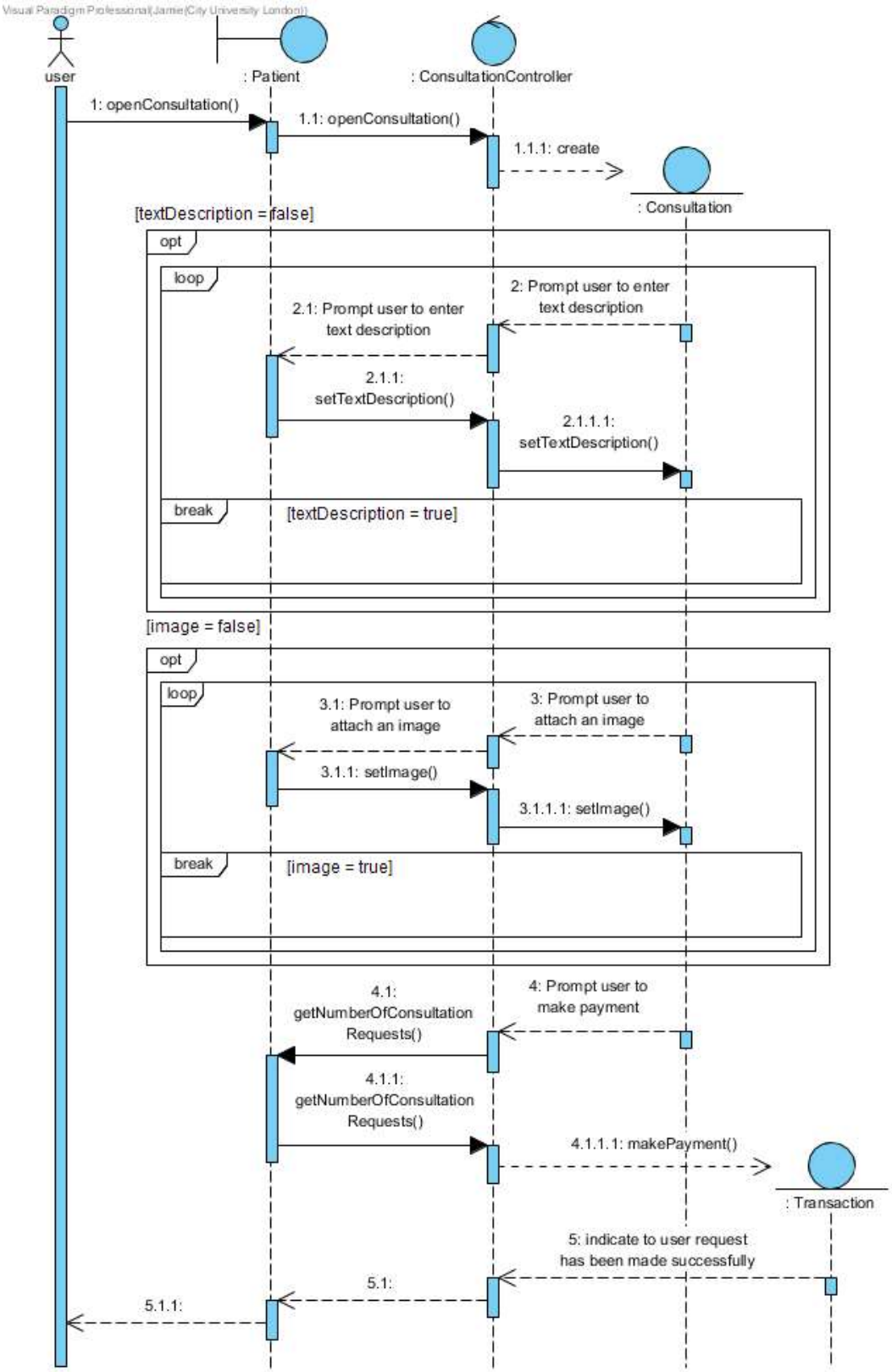
Consultation	
Description: A consultation request made by a patient.	
Attributes:	
Name	Description
consultationID	A unique numeric identifier
timeRequestMade	The time the request was made
consultingDermatologist	The dermatologist providing advice
numberOfClarificationsMade	The number of clarifications associated with the consultation
textDescription	A description of the patient's skin condition
image	A picture of the patient's skin condition
adviceGiven	The advice given by the dermatologist
Responsibilities:	
Name	Collaborator
Get the time a request was made	
View associated clarification requests	Clarification

Patient	
Description: An individual who is requesting, or has already requested, advice on a skin condition	
Attributes:	
Name	Description
username	Unique identifier for account authentication
password	A secret identifier for account authentication
emailAddress	A contact email address
numberOfConsultationRequestsMade	A number to track when they are eligible for a discount
Responsibilities:	
Name	Collaborator
Login	
Logout	
Open consultation	Consultation
Cancel consultation	Consultation
Ask for clarification	Clarification
Pay for consultation	Transaction
Request a refund	Transaction

b.3)


WebSRU_CD
<<controller>>
AccountController
createAccount()
sendAuthenticationDetails()
Creates >
1
1..*
<<boundary>>
Account
username
password
emailAddress
login()
logout()
<<boundary>>
Patient
numberOfConsultationRequestsMade
<<boundary>>
Admin
changeEncryptionKey()
1..*
V interacts with
1
<<entity>>
Clarification
clarificationNote
0..*
< manages
1
<<controller>>
ConsultationController
openConsultation()
cancelConsultation()
viewConsultation()
getClarifications()
makePayment()
requestRefund()
requestClarification()
checkTimeRequestMade()
getEncryptionKey()
encryptImage()
decryptImage()
interacts with >
1..*
1
<<entity>>
EncryptionKey
encryptionKey
1
^ manages
1
<<entity>>
Request
consultationID
timeRequestMade
consultingDermatologist
adviceGiven
getTimeRequestMade()
<<entity>>
Consultation
numberOfClarificationsMade
textDescription
image
viewClarifications()
0..*
< manages
1
1..*
1
<<controller>>
RecordsController
viewConsultation()
checkUrgentRequests()
1
1..*
<<boundary>>
Dermatologist
viewConsultation()
< communicates with
< interacts with
1
V manages
0..*
<<entity>>
Transaction
consultationID
transactionDate
transactionAmount
lastFourDigitsOfCardUsed
transactionID

Question 5)


Visual Paradigm Professional(James(City University London))
user
: Patient
: ConsultationController
1: openConsultation()
1.1: openConsultation()
1.1.1: create
: Consultation
[textDescription = false]
opt
loop
2: Prompt user to enter text description
2.1: Prompt user to enter text description
2.1.1: setTextDescription()
2.1.1.1: setTextDescription()
break
[textDescription = true]
[image = false]
opt
loop
3.1: Prompt user to attach an image
3: Prompt user to attach an image
3.1.1: setImage()
3.1.1.1: setImage()
break
[image = true]
4.1: getNumberOfConsultation Requests()
4: Prompt user to make payment
4.1.1: getNumberOfConsultation Requests()
4.1.1.1: makePayment()
: Transaction
5: indicate to user request has been made successfully
5.1:
5.1.1: