ICT284 Systems Analysis and Design

Assignment 2

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Assume 1 credit for 1 quote

Assume in the past one employee was required to link the caterers to the customers

Assume Edison is the owner

1)

The main stakeholders include-

- Customers: are interested in the system because it reduces the time taken to link the customer to their caterers. This is a result of automating the linking process. The system also provides the customer with the tools, such as the feedback system, to select the best optimal caterer.

- Edison-Guacamole: has various interest with the system. Firstly, the process of linking the customer with the caterer is automated; therefore, whoever was required to link the two is no longer required to do so and is now freed up to do other important tasks. Alternatively, the employee that had the job of linking the customers and the caterers can be now stood down, without effecting the business, to save money for Edison. Secondly, the system also provides Edison with information that would normally be too tedious to collect such as revenue breakdown according to capital cities. This additional information helps Edison to monitor the health of his business.

- Paypal: The WPE system uses PayPal as its middleman. Whenever a caterer wants to buy credit they will need to purchase it through PayPal. Every time a purchase is made PayPal gets a small percentage of the payment. Therefore, the implementation of the system helps PayPal earn money

- Caterers: are interested in the system for a variety of reasons. The system standardises the communication between the caterers and customers. The system also makes it easier for caterers to market themselves. For example, the feedback system can be used by caterers to convey how reliable they are.

2a)

Assume a caterer will have a contact email and website

Assume a review of a service is really a star rating and a comment

Assume caterers have to register for a caterer's account rather than a typical customer account

Assume that hired mean accepted and unsuccessful means rejected

Assume caterers are notified when they are hired

Functional requirements for the WPE include-

- Allow caterers to register for a catering account
- Assign the "verified" label to caterers that provided- ABN, business name, logo, and proof of current Public Liability or Professional indemnity to the system
- Maintain information about the caterers these may include- business name, description, types of service they provide, their website link, and contact email and location (city and postcode included)
- Requires caterers to pay to use the WPE system
- Keep track of the number of credits each caterer has
- Keep record of credit purchasing transactions
- Notify the caterers when they run out of credit
- Allows customers to submit a catering job request in order to get quotes from catering jobs
- Matches customer quotation request with the three best suited caterers
- Send catering job request to the three best suited caterers
- Notifies caterers when they have an open request for quotation
- Creates customer account for customers when they submits their first catering job request
- Allows customers to see the status of all their catering job requests
- Allows caterers to send a detailed quote
- Sends completed detailed quote from caterer to the customer
- Keep track of whether each caterer quotes were accepted or rejected by the customers
- Notify caterers when their quotes are rejected
- Notify caterers when their quotes are accepted
- Notify customers when their job is completed
- Allows customers to cancel their job request before making a booking
- Create summary reports each month and these reports include- percentage of quotes that were successful in obtaining a booking for a catering job, the average satisfaction rating of completed catering jobs and revenue of WPE in terms of payments for credit, broken down for each capital city.
- Allows customers to submit a review of a service they booked.
- Records submitted reviews for each caterer

2b)

Usability

- WPE system should provide a toggle button allowing colour blind people to click the button to change the colour of the website to a more friendly colour
- A step by step video guide explaining how to use the website should be provided

Reliability

- The WPE system should have no more than three unexpected outages per year

Performance

- The WPE system must be able to handle 2000 active users at one time.
- The WPE system should be able to link the customers to their three suitable caterers in mere seconds

Security

- A service can only be reviewed by customers who booked that service. This is to reduce the amount of false reviews
- Paypal is used to provide secure transactions between the customers and caterers

Design constraint

- The WPE system will be hosted using a server located in their original WA base
- WPE system can be accessed on both PC and smart phones.

Implementation

- WPE system will be programmed through Java

Physical requirements

- The WPE system server should have a proper cooling system to prevent overheating

3a)

Assume that the only way for a customer to register is through the submission of a job request

Assume credit being purchased during registration is not mandatory

Assume caterer profile may contain select reviews from previous customer and average rating. But it must contain their website link

Assume caterer is automatically notified when the job status changes

Use Case	Brief description	Actors
Register caterer account	The use case describes the event of a new caterer requesting to join the WPE system. Basic caterer information is entered and credit may be purchased	Caterer
Find caterers	Customer request caterers by entering caterer job request information through an online form	Customer
View job requests status	System will display the status of all the customers' job requests to the customer	Customer
View customer job request	This use case describes the event of the caterer being able to look at the details of the customer's job request	Caterer
Create job quote	The caterer creates a detailed quote for a particular job request submitted by a customer	Customer Caterer
Search caterer's profile	Caterer's profile information is retrieved by entering caterer's business name or ABN	Customer
View caterer feedback	Customer enters caterer business name and system retrieves and display caterer's reviews	Customer

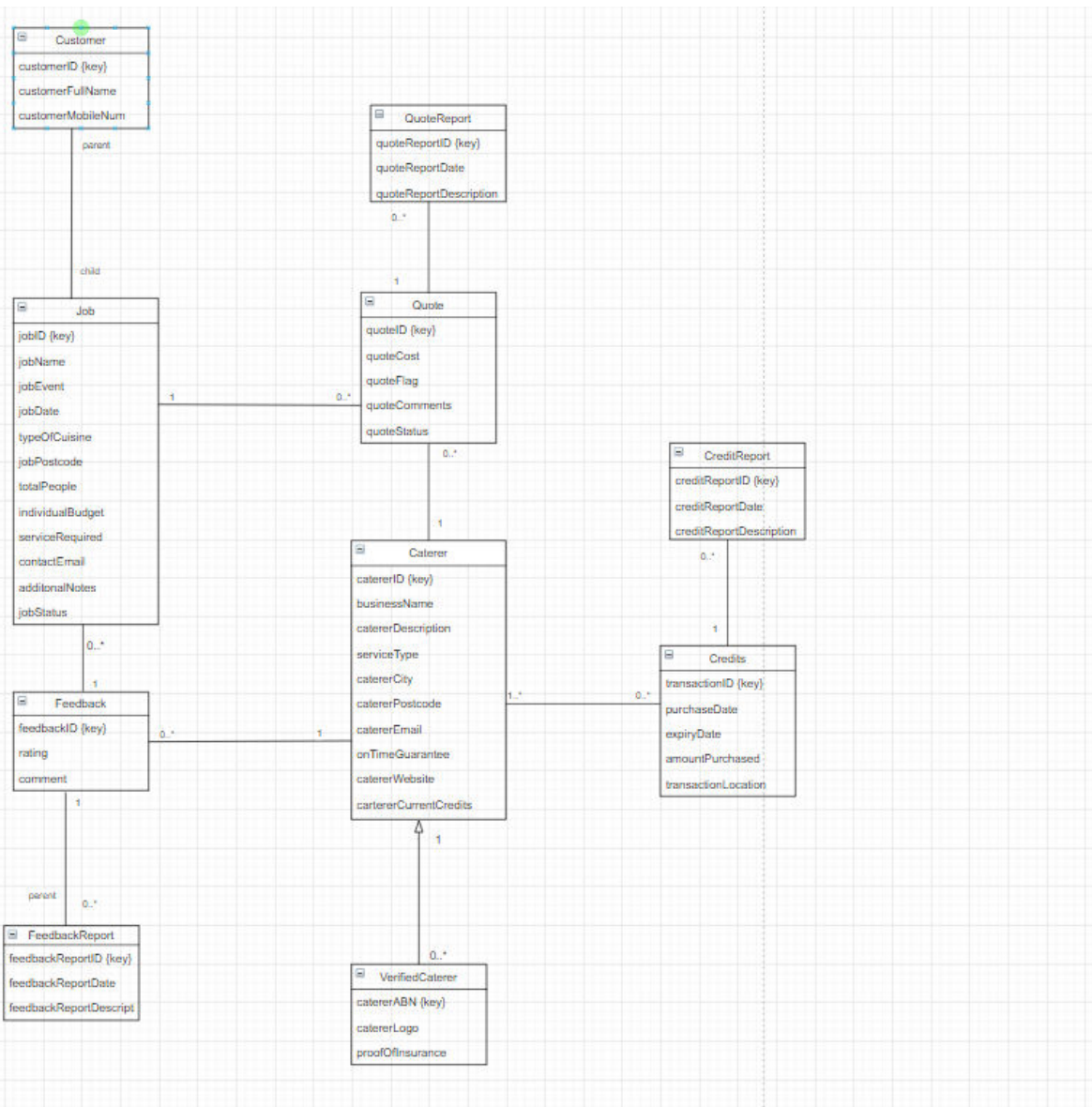|		
Accept job quote	Customer selects hire option against caterer's detailed quote to accept offered quote for the job	Customer Caterer
Reject job quote	Customer selects unsuccessful option against the caterer's quote to reject the offered quote	Customer Caterer
Cancel job request	This use case describes the event of the customer stopping a job	Customer Caterer
Advertise On-Time Guarantee	Caterer enters ABN, Business name, logo, and proof of current Public Liability or Professional indemnity insurance and system verifies caterer	Caterer
Complete job	Caterer indicates the requested job has been completed	Caterer Customer
Sign-in to account	Caterer and customer logs into their account by entering their correct username and password	Caterer Customer
Provide feedback	Registered customer enters a rating out of five and a comment against a job and system records it against the associated caterer	Customer

3b)

Event	Type of event	Use case	Brief Description	Actors
Time to produce credit payments report	Temporal event	Print credit payments report	This use case describes the event of printing credit payments report every month	
Time to produce satisfaction ratings report	Temporal event	Print satisfaction rating report	This use case describes the event of printing satisfaction ratings report every month	
Time to produce successful quotes report	Temporal event	Print successful quotes report	This use case describes the event of printing the successful quotes report every month	
Time to automatically close job request	Temporal event	Close job request	System closes job request and notifies the customer after 48 hours of no quotes being provided by caterer	
Service is provided late	Temporal event	Reimburse customer	The use case describes the event of reimbursing the customer after service is delivered late	
Credit reorder point is reached	State event	Purchase additional credit	This use case describes the event of caterers buying additional credits when they require more credit	Caterer
Time for credit to expire	Temporal event	Void credit	This use case describes the event of credits expiring every three months	

4)

Assume proof of current public liability and professional indemnity insurance is same thing. It comes under the umbrella of attribute: proofOfInsurance
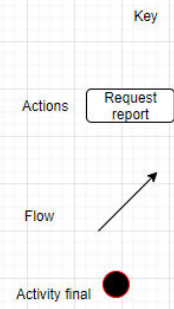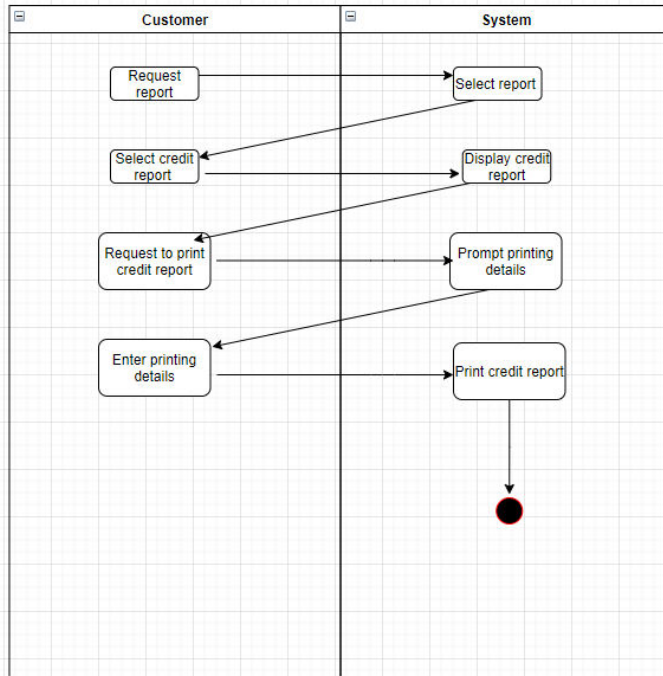
5)

Keys:

C = CREATE

R = READ/REPORT

U = UPDATE

D = DELETE

CRUD matrix for WPE

Domain Class Use Case	Caterer	Customer	Quote	Job	Feedback	Credits	Verifi edCat erer	Credit Report	Feedb ackRe port	Quote Report
Register caterer account	C						RC			
Find caterers	R	R		C						
View job requests status		R		R						
View customer job request	R									
Create job quote			C							U
Search caterer's profile		R			R		UD			
View caterer feedback		R			R					
Accept job quote	R	C	U	U		R				
Reject job quote	R	CD	UD	U						
Cancel job request	D		U	U						
Advertise On-Time Guarantee	U									

Complete job				U						
Sign-in to account								CD	CD	CD
Provide feedback					CUD				U	
Print credit payments report						R		R		
Print satisfaction rating report									R	
Print successful quotes report			R							R
Close job request				D						
Reimburse customer		U								
Purchase additional credit						CU		U		
Void credit						D				

6)

Use Case Name:	Find caterers
Scenario:	Web Customer finds caterers
Triggering Event:	Web Customer needs a caterer for his catering job
Brief Description:	Customer request caterers by entering caterer job request information through an online form and submitting it.
Actors:	Customer
Stakeholders:	Customer, Caterer and Edison-Guacamole

Preconditions:	Customer must not be logged into the system Customer must have an email address
Postconditions:	Customer account must be created Job request must be linked to three caterers The three caterers must be informed about the job request

Flow of Activities:	Actor	System
	1. Customer creates a catering job request	1.1 System request information about the catering job request
	2. Customer enter information about the catering job request and submits the request	2.1 System creates an account 2.2 System returns customer account details 2.3 System matches job request with three caterers 2.4 System notifies caterers about the open job request 2.5 System notifies customers that job request has been submitted

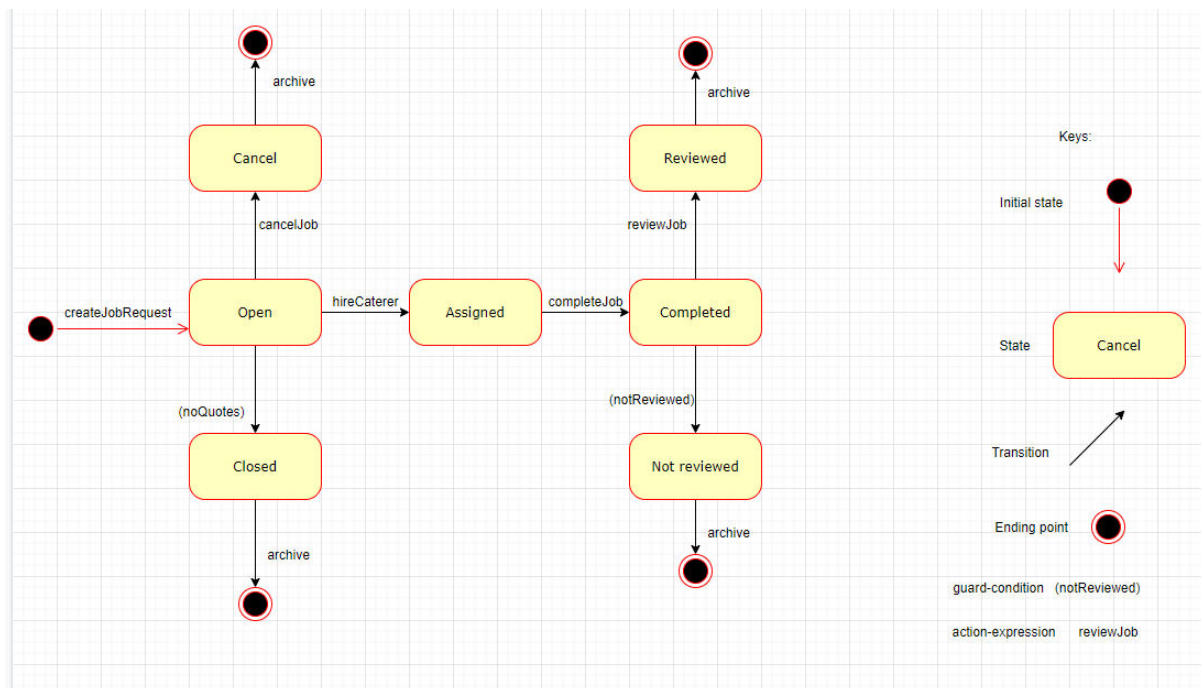|	
Exception Conditions:	2.1 Email address provided is already registered 2.3 Information about catering job is not fully provided 2.4 The caterers email address is not valid

7) Use case: Print credit payments report

8)

Customer

:System

createNewFeedback (jobID)

feedbackID, jobID

enterFeedbackDetails (rating, comment)

display feedback details

Feedback details:
rating, comment

postFeedback (feedback)

post confirmation

Keys

The object lifeline shows sequence of messages from top to bottom

Input message

Actor

return value(s)

:System   System object
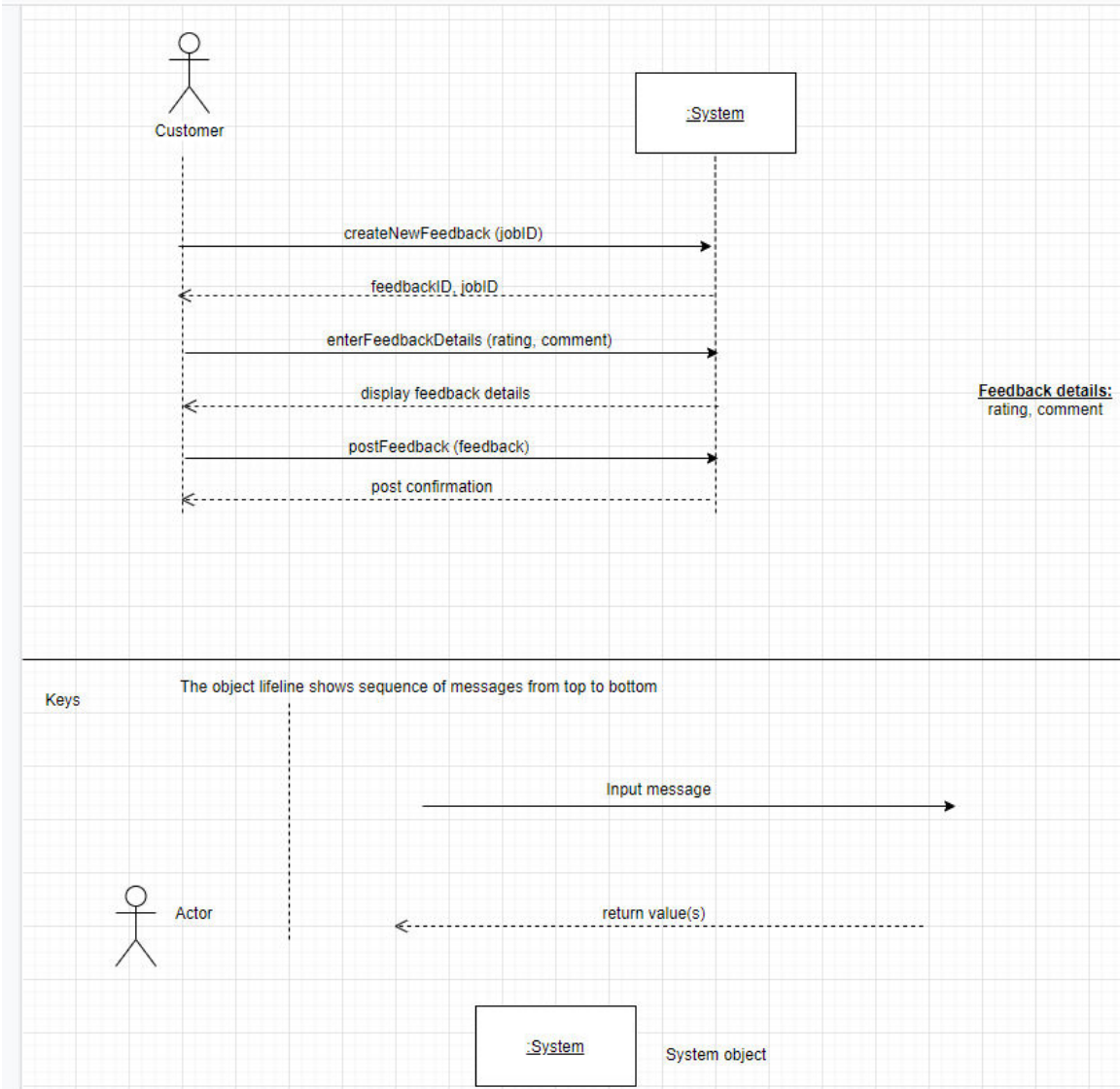
9)

Catering job object state machine diagram:

10)

Use case name	Test conditions	Expected outcomes
Print summary report	Print credit payments report, Print satisfaction rating report , Print successful quotes report	Report credits payment, Report satisfaction rating, report successful quotes
Maintain job quote	Create job quote, Accept job quote, Reject job quote,	New job quote in database, hire caterer, caterer is rejected
Maintain job request	Find caterers, View job requests status, View customer job request, Cancel job request, Close job request, Complete job	Assign job request with three potential caterers, Read customers status of job requests, Delete selected fields, Close selected fields, Update job request with selected field
Maintain accounts	Register caterer account, Sign-in to account, Search caterer's profile, View caterer feedback	New caterer account in database, Update visitor status field, Read caterer account, Read caterer feedback
Maintain credit	Purchase additional credit, Void credit	Update total credit field for caterer, Deduct expired credit from total credit field
On-time guarantee feature	Advertise On-Time Guarantee, Reimburse customer	Update caterer account with selected field, give $100 back to customer
Maintain feedback	Provide feedback	New feedback in database