SOFE 3650U Software Design and Architecture

Art Gallery Website: Project Progress Report

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Use Case Model :

The following use case model presents the most relevant use cases that support the art gallery website model. Other use cases are not shown.
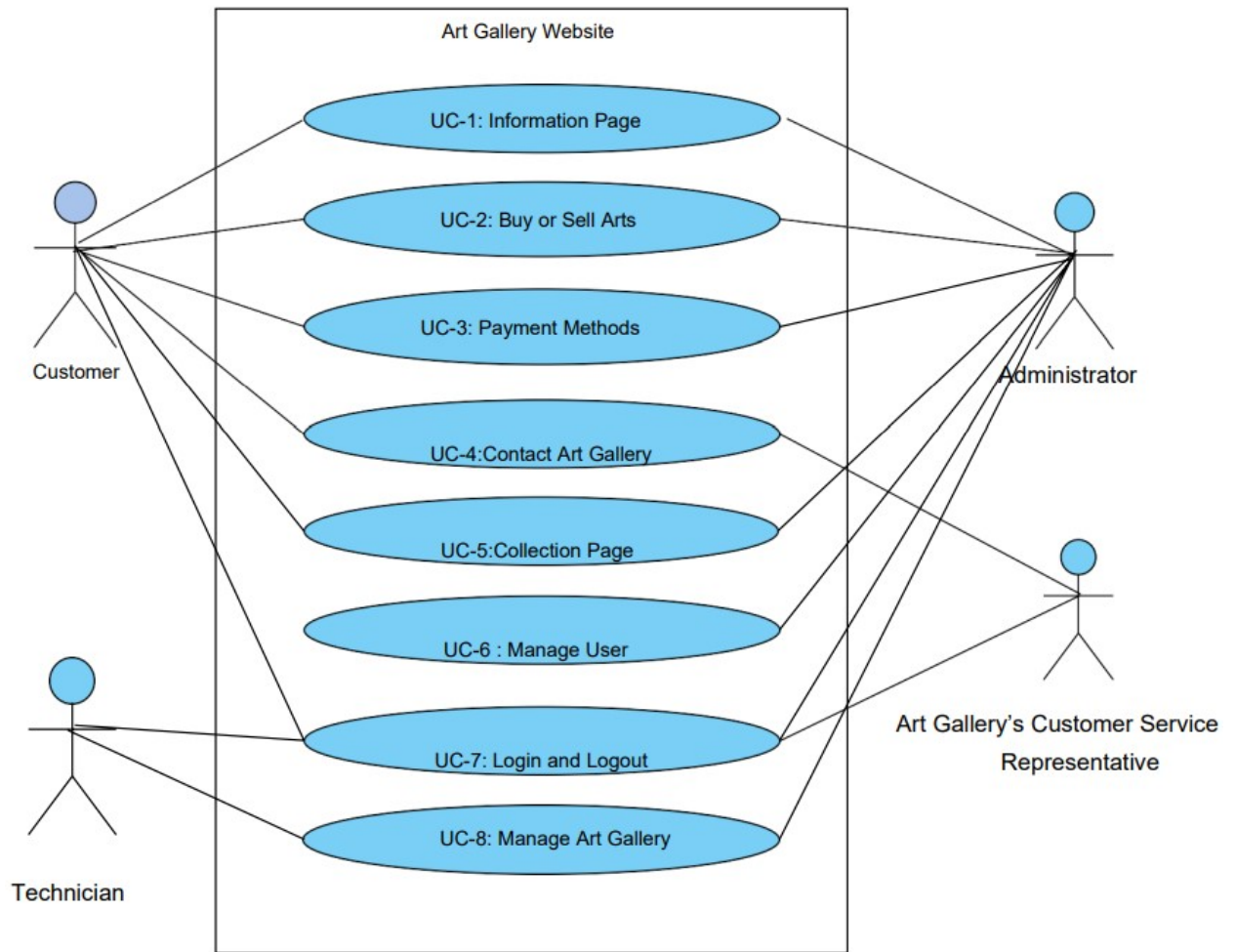

Figure 1:Use Case Model for Art Gallery Website

Each of the use case has been described in the table below :

Use Case	*Description*
UC-1: Information Page	A user can access the information about the art gallery website, history of art gallery website, and the events of the upcoming art gallery and its location Administrator can update this information, upload new information, new events description.
UC-2: Buy or Sell Arts	A user can buy art pieces from the sales page and can select the quantity required to buy. Administrator has the access the to update the art pieces for selling. Administrator can also buy the art pieces from the artists.
UC-3: Make Payment	A user can use the different payment methods to buy the desired art pieces. Administrator can buy art from the users that are selling the art pieces by making payment through this method.
UC-4: Contact Art Gallery	A user can provide feedback, express concerns, make a complaint regarding the services provided at art gallery website through Art Gallery contact page. A customer service representative can see the complaints and concerns of the users through art gallery contact page and can access them accordingly.
UC-5: Collection Page	A user can see the different art pieces listed on the collection page. Collection Page is only meant to display the art pieces. Users can access this page free of cost. Administrator can remove, add or modify the art pieces on this page.
UC-6: Manage Users	The administrator removes or adds the users. Administrator can modify the permissions of the users. User can be removed for a limited period or permanently by the administrator .
UC-7: Login and Logout	A user login into the system through a password /login page will be promoted when the user clicks on sign in. Once the user has been authorized the access to the art gallery, user can navigate the art gallery website according to the roles. Administrator have access to the login and passwords of every user of the art gallery website.
UC-8: Manage Art Gallery	Administrator have access to the art gallery and manages the amount of art pieces displayed, any information or issues related to the art gallery. Technician manages the art gallery by fixing the concerns related to the art gallery functioning. Technician is responsible for the overall maintenance of the art gallery website.

Quality Attribute Scenarios :

Quality Attribute	Description	Associate Use Case(s)
QA-1: Performance	The User should not experience delays of more than 5 seconds in retrieving information from the site.	All UC
QA-2: Usability	The User has many methods of paying for the art they desire. The system should reflect this and offer many payment methods (bank transfer, e-transfer, cash by mail etc…)	UC-3
QA-3: Testability	The system may sometimes receive invalid inputs. The system should be able to process these inputs within 10 seconds per invalid input.	All UC
QA-4: Security	User's will store private financial information on thesite to buy and sell art. Therefore, the system should encrypt the private information of its users like login and financial info.	All UC
QA-5: Modifiability Usability	The system administrator should be able to modify theart gallery.	UC-1, UC-2, UC-5, UC-8
QA-6: Testability	The system must be able to complete art transactions	All UC
QA-7: Availability	The system must continue to operate and be available all the time. For UC-4 availability must be predefined	All UC
QA-8: Interoperability	The system must exchange data with external systems such as banking services and online payment providers	UC-3
QA-9: Performance	The users can see new art pieces withing thirty minutes from an update by the administrator.	UC-5
QA-10: Security	The management can easily find out the different modes of payments and which users have made the payments	UC-3
QA-11: Security	The administrator can decide which users can be added or removed from the art gallery due to any security concerns which might be temporary or	UC-6

Constraints :

Constraint	Description
CON-1	The system must be accessible and run smoothly by all popular web browsers (mozilla, chrome, edge etc...) and all popular operating systems (Windows, mac os x). Additionally, the system must also support mobile devices.
CON-2	All user data including financial and transactional records must be stored indefinitely.
CON-3	The system must have a mobile-friendly design.
CON-4	The system must work properly when viewed with different resolution monitors. The system must work when the view is stretched or shrunk.
CON-5	All art uploaded to the system must have the authors permission.

Architectural Concerns :

ID	Concern
CRN-1	Establishing an overall system structure.
CRN-2	Allocate work to the members of the development team