Project Introduction:

The project is an arcade game center that has different games divided by game category. Inside the center there are separate corners and each corner has its own games. The center coordinates various competitions for participants. Employees and shared and non-subscribed users flock to the center.

Feasibility Study

Importance of the project:

Facilitating users, whether employees or players, using the Center's resources.

Tools used for operation:

- Devices to operate the system with the following features:
    - Processor at least the 10th generation of Intel.
    - Processor at least Core i5.
    - HDD at least 2 TB.
    - SSD is at least 500 MB.
    - At least 16 GB of RAM.
    - Suitable screen.
- Three devices for good management of the center.
- Internet.

- A server to upload the system and contains a data space of at least 10 TB.

Staff:

- Data Analyst.
- UX/UI designer.
- Website Front-End developer.
- Website Back-End developer.

Tools used for development:

- Mid-range laptop.
- Intel Core i7 8th processor.
- SSD 512 GB.
- HDD 1 TB.
- Ram 32 GB.

Budget:

- 20,000 pounds per device used in operation with three devices and a total price of 60,000 pounds.
- The amount of 10,000 pounds for the cost of establishing an Internet network.
- The amount of 25,000 pounds is the cost of a server.
- The amount of 15,000 pounds salary of the data analyst.
- The amount of 13,000 pounds is a designer's salary.
- The amount of 17,000 pounds is the salary of a web Front-End developer.

- The amount of 19000 pounds salary of a web Back-End developer.
- The amount of 25000 pounds for the device used in the development.

Summary:

The total amount required is 204,000 pounds and the amount provided by the client is 210,000, so the cost of the project is below the specified cost and the project can be implemented comfortably.

Functional Requirements:

- ### On the staff side:
    - The employeelogs in to display a page that suits his job.
    - The average employee only reviews their data in a set of detailed screens.
    - The receptionist can only enter and modify customer data and does not perform any other operations on it.
    - The accountant can only view the salaries of employees and confirm that the salary has been delivered.
    - The accountant can only review imports and financial expenses and cannot modify them.
    - The foreman manager can distribute the work to other employees.

- The center manager is the only one who can add new employees within the database, delete them or modify their data.
- The center manager adds or modifies the data of the machines.
- The center manager can deal with various reports that are added as needed.
- The center manager is the only one who can create a new contract and add his data.
- The manager can add new things or modify their data, such as:
  - Jobs.
  - Periods of work.
  - Corners of the Center.
  - Competitions.
  - Subscription packages.
- The maintenance employee can deal with the data in terms of entering the data of the machine to be maintained.

- On the user side:
  - The user deals directly with the program without logging in.
  - The non-subscribed user can see data about the center, its corners and the machines it contains only and nothing else.

- All users get prizes when playing with a machine that awards prizes.
- A non-subscriber can create an account to become a subscriber.
- The subscriber logsinto the site to offer additional features.
- The subscriber registers for a subscription package.
- The participant registersin competitions.
- The subscriber dealswith the program to modify his data or package.
- The subscriber will see his activity history at the center.

Non-functional requirements:

- Writing the program according to the rules of software to facilitate understanding and dealing with it in the future.
- Consider the program is subject to modifications and repairs later.
- Ensure that the program performs the required functions.
- Consider quality of the program and providing the highest speed and best performance to the user.
- Consider security in registering accounts and displaying data.

Use Case Descriptions

Login:

Use Case Name	Login
Actors	Employees, Subscribers.
Description	To login to the site to use its features.
Pre-Conditions	If emp, should has username and password. If player "Subscriber", should sign up first if he hasn't an account.
Scenario	1- User open the site. 2- Choose if user is employee or subscriber. 3- User go to username field and enter his name. 4- User go to password field and enter his password. 5- Press on login button to confirm username and password.
Post-Conditions	Go to Home page of every user as specific.
Alternate-Scenario	None
Exception-Scenario	4.1- if username or password is wrong show text "Username or password is wrong". 4.2- if user is emp and enter wrong password will show text "Username or password is wrong.".

Use Case Name	Forget Password
Actors	Employees, Subscribers.
Description	If user forget his password, he can get it back from this page.
Pre-Conditions	If emp, should has username and password. If player "Subscriber", should sign up first if he hasn't an account.
Scenario	1- Open site and try to login. 2- Press on forget password button. 3- Enter his id and national number. 4- Press to "get the old password".
Post-Conditions	1- View password for 2 sec. 2- Show "go to login page" button instead of "get old password button.
Alternate-Scenario	None
Exception-Scenario	4.1- if id and national number is wrong show text "id and national number is wrong.".

Use Case Name	Logout
Actors	Employees, Subscribers.
Description	If user finish his needs, he can logout to save his privacy.
Pre-Conditions	Logged in.
Scenario	1- open side menu. 2- Press on logout button.
Post-Conditions	1- If player, will go to non-subscriber page. 2- If emp, will go to login page.
Alternate-Scenario	None
Exception-Scenario	None

Employee:

Use Case Name	Employee reviews
Actors	Employee, system
Description	The average employee only reviews their data in a set of detailed screens
Pre-Conditions	Employee login
Scenario	1. The Employee logs in to allow him access to the list. 2. Shows Personal data and General data 3. The Employee clicks on the personal data button to see all data it cannot any one sees that such as SSN number, phone, address and Job Title. 4. Exit the rewards and discounts menu by pressing the back button and go back to the main menu. 5. The Employee presses the Type of job button to display his type.
Post-Conditions	If there are discounts or bonuses, they will be added to the salary
Exception	1.1. The Employee cannot login due to wrong id or password.

Receptionist:

Use Case Name	Receptionist
Actors	Receptionist, site, customer
Description	The receptionist can only enter and modify customer data and does not perform any other operations on it.
Pre-Conditions	receptionist login
Scenario	1- The receptionist login. 2- choose entry data or edit data. 3- The receptionist clicks on entry data to entry data about customer. 4- Exit the entry data menu by pressing the back button and go back to the main menu. 5- The receptionist clicks on edit data to editing data for customer.
Post-Conditions	If there are new data or updating data, they will be added to the customer data
Exception	1.1. The receptionist cannot login due to wrong id or password.

Accountant:

Use Case Name	Imports, exports, and expenses
Actors	Accountant, system
Description	The accountant can review imports, exports and expenses and they cannot be modified
Pre-Conditions	Accountant login
Scenario	1. The accountant logs in to allow him access to the list. 2. A list of imports, exports, and expenses appears. 3. The accountant presses the export, import, or expense button to display the costs. 4. Navigate between these services by pressing the back button and selecting the desired service.
Post-Conditions	Know the costs of imports, exports, and expenses.
Exception	1.1. The accountant cannot login due to wrong id or password.

Use Case Name	Staff salaries
Actors	Accountant, system
Description	View employee salaries and ensure that they are received
Pre-Conditions	Accountant login
Scenario	6. The accountant logs in to allow him access to the list. 7. Shows employee salary list, bonuses, deductions, and salary status. 8. The accountant clicks on the rewards and deductions button to see if there is a deduction or equivalent for the employee. 9. Exit the bonuses and discounts menu by pressing the back button and go back to the main menu. 10. The accountant presses the employee salaries button to display the salaries.
Post-Conditions	If there are discounts or bonuses, they will be added to the salary
Exception	1.1. The accountant cannot login due to wrong id or password. 5.1. Not adding bonuses or deductions to the salary.

Maintenance:

Use Case Name	Maintenance work
Actors	Maintenance worker, system
Description	Knowing the malfunction in each machine if any.
Pre-Conditions	Maintenance worker login
Scenario	11. The maintenance worker logs in to allow access to the list. 12. Shows faults to the maintenance worker. 13. The accountant presses the fault button. 14. A list appears with the type of instrument and the number in which corner it is located. 15. The maintenance worker presses the machine type button and shows whether there is a malfunction or not. 16. The maintenance worker determines the type of fault in the machine.
Post-Conditions	The faults in the machines that need maintenance are identified.
Exception	1.1. The Maintenance worker cannot login due to wrong id or password. 5.1. There may be a malfunction in a machine that is not visible to the worker.

Foreman Manager:

Use Case Name	foreman manager
Actors	manager, site, employee
Description	The foreman manager can distribute the work to other employees
Pre-Conditions	Manager, login
Scenario	1. The manager logs in. Shows employee, his job title and Type of job. 2. The manager clicks on the Type of job and select the desired job Based on that, identifying the employee by job title
Post-Conditions	If there are new data or updating data, they will be added to the customer data
Exception	1.1. The manager cannot login due to wrong id or password.

Manager:

Use Case Name	Add Employee
Actors	Manager
Description	Manager can add new employee data.
Pre-Conditions	Login as manager.
Scenario	1- Open website. 2- Go to employee section. 3- Press on add employee button. 4- Website will open new screen to add information. 5- Add basic info. 6- Add SSN. 7- Submit data button to upload data.
Post-Conditions	Go to add Contract screen.
Alternate-Scenario	None
Exception-Scenario	7.1- if manager enter wrong data will show text with wrong field. 7.2- if manager enter a rebated SSN will show text alert.

Use Case Name	Add Contract
Actors	Manager
Description	After adding employee manager will directly move to this screen.
Pre-Conditions	Add employee
Scenario	1- Enter contract data. 2- Press on create contract button. 3- Site will open screen to enter manger username and password to confirm him.
Post-Conditions	Go back to employee page.
Alternate-Scenario	none
Exception-Scenario	2.1- if manager enter wrong data will show text with wrong field. 3.1- if manager enter wrong username or password will show text with wrong field.

Use Case Name	Add data
Actors	Manager
Description	The manager can delete data for his reasons.
Pre-Conditions	Login as manager
Scenario	1- Open data section. 2- Press "Delete data" button. 3- Site will open screen to enter username and password. 4- Press on Delete data button.

Post-Conditions	Go back to view all data screen.
Alternate-Scenario	none
Exception-Scenario	3.1- if manager enter wrong username or password will show text with wrong field.

Use Case Name	Modify Data
Actors	Manager
Description	Manager can modify submitted data.
Pre-Conditions	Add data, login.
Scenario	1- Open data section. 2- Press "modify data" button. 3- Site will open screen to enter new data. 4- Press on update data button.
Post-Conditions	Go back to data section.
Alternate-Scenario	None
Exception-Scenario	4.1- if manager enter wrong data will show text with wrong field.

Use Case Name	Delete Data
Actors	Manager
Description	Manager can modify submitted data.
Pre-Conditions	Add data, login.
Scenario	1- Open data section. 2- Press "Delete data" button. 3- Site will open screen to enter username and password. 4- Press on Delete data button.
Post-Conditions	Go back to all data section.
Alternate-Scenario	None
Exception-Scenario	4.1- if manager enter wrong username or password will show text with wrong field.

Non-subscribed:

Use Case Name	Play Game and Get Prize
Actors	All User
Description	All users can play games and win prizes when playing with machines that award prizes.
Pre-Conditions	The user is at the arcade game center and is playing a game on a machine that awards prizes
Post-Conditions	The user has played the game and won a prize
Basic flow	1-The user selects a game that awards prizes. 2-The user plays the game. 3-The user wins a prize.

Use Case Name	Create Account and Subscribe
Actors	Non-subscribed user
Description	Non-subscribed users can create an account and subscribe to become a subscriber
Pre-Conditions	None
Post-Conditions	The user has created an account and is subscribed
Basic flow	1-The user opens the program. 2-The user selects the option to create an account.

	3-The program prompts the user to enter their personal information.
	4-The user enters their personal information.
	5-The program prompts the user to select a subscription plan.
	6-The user selects a subscription plan.
	7-The program prompts the user to enter their payment information.
	8-The user enters their payment information.
	9-The program confirms that the user's account has been created and they are subscribed

Subscriber:

Use Case Name	Modify profile
Actors	Subscriber
Description	The subscriber can modify his data in his profile and modify in subscriptions and competitions
Pre-Conditions	Log in
Scenario	1- The subscriber chooses to edit the profile from the main page 2- The subscriber makes the required modify and press Save 3- The system saves new modifications
Post-Conditions	The system is opened on the personal page
Exception-Scenario	

Use Case Name	register competitions
Actors	Subscriber – system
Description	The participant can join competitions held internally within the center with other participants.
Pre-Conditions	Log in
Scenario	1- The subscriber open the competitions page. 2- Choose from the competitions held that he wants to join.

	3- View the details of the competition for the participant to read well before join.
	4- Register for the competition.
	5- Print the confirmation message and put the details of the competition in the profile page of the subscriber, including his ranking within the competition.
	6- The subscriber starts playing and competing within the competition.
Post-Conditions	The system is opened in register competitions page.
Exception-Scenario	1.1- It is possible that there are no competitions available at this time, then the system outputs a message to the subscriber "Competitions will be available in the coming days, visit us soon".
	2.1- It is also possible that the number of contestants in this competition will be completed, when the system will send a message to the subscriber, "The competition is complete, look for another competition".

Use Case Name	register package
Actors	Subscriber – system

Description	The subscriber can buy some packages to help him play in the competitions.
Pre-Conditions	Log in
Scenario	1- The subscriber enters the packages page. 2- The subscriber chooses from the packages available on the page what suits the competitions and games he is joining in. 3- View package details well for the subscriber to read well before buying it. 4- The subscriber purchases the package. 5- The system makes sure that the subscriber's account has enough money to buy the package. 6- Complete the purchase process, print the purchase confirmation message and put the package details in the subscriber's profile.
Post-Conditions	The system is opened in register packages page.
Exception-Scenario	1.2- It is possible that there are no packages available at this time, then the system outputs a message to the subscriber

	"Packages will be available in the next days, visit us soon".
	5.1- It is possible that the sufficient price is not available in the subscriber's personal account, so a message is taken out, "We are sorry to tell you that there is not enough money to buy the package".