SPECIFICATION

Team Deep Fantasy

Client	Base
Status	Draft
Department	Development

Last Saved	14 May 2020

PROPRIETARY NOTICE

REVISION HISTORY

Revision Number	Revision Date	Author(s)	Description
1.0			Initial Draft

TABLE OF CONTENTS

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INTRODUCTION

THIS DOCUMENT SPECIFIES THE REQUIREMENTS FOR

1.1 AUDIENCE

THIS DOCUMENT IS INTENDED FOR THE BELOW GROUPS.

GROUP	USAGE
DEEP FANTASY STUDIO DEVELOPMENT	RESPONSIBLE FOR DOCUMENT REVIEW, FEEDBACK, AND USAGE OF THIS SPECIFICATION AS A GUIDE TO ENSURE THE COMPLETED DEVELOPMENT MEETS THE DOCUMENTED REQUIREMENTS.
DEEP FANTASY STUDIO QUALITY ASSURANCE	RESPONSIBLE FOR DOCUMENT REVIEW, FEEDBACK, AND USAGE OF THIS SPECIFICATION AS A GUIDE TO DEVELOP TEST CASES TO ENSURE ALL DOCUMENTED REQUIREMENTS ARE VALIDATED.
DEEP FANTASY PROFESSIONAL SERVICES/BUSINESS ANALYSTS	RESPONSIBLE FOR DOCUMENT PREPARATION, REVIEW, AND ENSURING THIS SPECIFICATION STAYS UP-TO-DATE TO REFLECT THE EXPECTED BUSINESS BEHAVIOR.
BASE	RESPONSIBLE FOR DOCUMENT REVIEW, APPROVAL AND VALIDATION.
DEEP FANTASY STUDIO DESIGN CREATION	

1.2 TERMINOLOGY, ACRONYMS AND ABBREVIATIONS

TERM	DESCRIPTION
API	APPLICATION PROGRAM INTERFACE
BI	BUSINESS INTELLIGENCE SYSTEM
EDOM	E-COMMERCE DISTRIBUTED ORDER MANAGEMENT SYSTEM
POS	POINT OF SALE SYSTEM
ST	STORE SERVER
VMS	VISION MERCHANDISING SYSTEM
VSCS	VISION STORE CENTRAL SERVER

WMS	WAREHOUSE MANAGEMENT SYSTEM
C++	PROGRAMMING LANGUAGE FOR DEVELOPMENT

1.3 APPROVAL

THIS SPECIFICATION IS APPROVED BY THE BELOW PERSONNEL.

NAME	TITLE	COMPANY	COMMENTS	APPROVAL DATE
ALEX	PROFESSOR	LASALLE COLLEGE	THIS DOCUMENT WILL BE APPROVED ONLY BY ALEX	

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EXECUTIVE SUMMARY

2.1 OBJECTIVES

LET PLAYERS EXPERIENCE A LARGE SCALE TEAM BASED PVP BATTLE IN A MEDIEVAL BASED FANTASY WORLD. THE GAME WILL PROVIDE OPTIONS OF 10v10, 30v30 OR 50v50 LARGE SCALE BATTLE GROUNDS SUCH AS NAVAL, GROUND OR AIR BATTLES. PLAYERS CAN EITHER HELP THEIR TEAM TO MANIPULATE BEHEMOTH, THE GIGANTIC WARMACHINE(LEVIATHAN BATTLESHIP, SURTUR WAR GOLEM OR VRITRA AIRSHIP) OR WORK ALONE AS AN ASSAULT FORCE.

2.2 COMPANY NAME AND COMPANY LOGO

COMPANY NAME: DEEPFANTASY STUDIO

COMPANY LOGO:

2.3 PROVIDE A BACKGROUND HISTORY OF THE COMPANY, ITS HISTORY, BRANCHES, SHORT TERM OR LONG TERM GOALS

WE ARE A NEWLY ESTABLISHED AND ENERGETIC GAME STUDIO.

OUR SHORT-TERM GOAL IS TO MAKE A LARGE SCALE MEDIEVAL FANTASY PVP BATTLE GAME.

OUR LONG-TERM GOAL IS TO PROVIDE PLAYERS WITH INTERESTING ONLINE BATTLE GAMES, SO THAT PLAYERS CAN IMMERSE THEMSELVES IN THE GAME WORLD THAT WE HAVE CREATED FOR THEM AND EXPERIENCE THE FUN OF LARGE-SCALE BATTLES.

2.4 EXPLAINING THE PROBLEM

1. WE ARE A SMALL STUDIO, SO THE DEVELOPMENT CYCLE IS VERY LONG.

2. WE DON'T HAVE ENOUGH FUNDS TO SUPPORT OUR GAME DEVELOPMENT.

3. OUR STUDIO IS SERIOUSLY FACING THE PROBLEM OF INSUFFICIENT STAFF.

2.5 DEFINING REQUIREMENTS AND NEEDS OF THE END USERS

1. NEED A GOOD INTERNET CONNECTION

2. COMPUTERS WITH MODERATE CONFIGURATION REQUIREMENTS

3. NEED TO REGISTER A USER ACCOUNT

2.6 WHO ARE THE END USERS AND PERSONAS?

END USERS:

OUR END USER WILL BE MOST TEENAGERS AND ADULTS WHO ENJOY AND INTEREST IN LARGE SCALE PVP BATTLE GAMES.

PERSONA 1:

PRICILLA IS 25-YEAR-OLD AND SHE THINKS SHE DOES NOT HAVE ENOUGH SKILLS. SO SHE CAN COOPERATE WITH HER TEAMMATES TO OPERATE THE VRITRA AIRSHIP TO DOMINATE THE BATTLEFIELD.

PERSONA 2:

PATRIC IS A 17-YEAR-OLD TEENAGER WHO THINKS HE HAS ENOUGH SKILLS TO HELP THE TEAM WIN. SO HE CAN CHOOSE TO FIGHT ALONE AND MANIPULATE SMALL VEHICLES TO CREATE FAVORABLE CONDITIONS FOR HIS TEAMMATES ON THE BATTLEFIELD.

2.7 WHAT IS THE PROJECT'S SCOPE?

The players are split into two different teams, each team will have 1 to 3 Behemoth warmachine (depending on the number of player, 10v10 will have 1 Behemoth, 20V20 will have 2 and 30v30 will have 3) the type of Behemoth will be depending on the type of battleground (Ground, Naval or Air). The players will need to destroy the enemy base or reduce the enemy team's reinforce points from 100 to 0 (each time a Behemoth is destroyed, the reinforce point will be reduced). Each Behemoth will be assigned 10 players as crew members, there will be multiple positions that player can choose once they are aborted. The commander could decide the attacking route of Behemoth and ping points on the minimap. Gunners could directly manipulate Behemoth's weapon systems. Engineers could repair damaged systems on your Behemoth. Assault forces could ride assault vehicles to strike enemy base or distract enemy Behemoth. Each position is essential but not obligated. However if a position is missing the game becomes more challenging, for example a crew without a commander will be blind on their minimap and their Behemoth will only follow a straight route toward the enemy base. Once the Behemoth is destroyed, the entire crew will be wiped and waiting for the next respawn.

2.8 USE PIECES TO DEFINE THE PROBLEM

1. PERFORMANCE
2. INFORMATION AND DATA
3. ECONOMICS
4. CONTROL AND SECURITY
5. EFFICIENCY
6. SERVICE

1.Performance

Requires a 64-bit processor and operating system

Operating System: 64-bit Windows 10 or later

Processor: Processor (AMD): AMD FX 8350 Wraith Processor (Intel): Intel Core i7 4790 or equivalent

Memory: 16 GB RAM

Graphics card: Graphics card (AMD): AMD Radeon™ RX 480 4GB Graphics card (NVIDIA): NVIDIA GeForce® GTX 1060 3GB

DirectX version: 11

Network: Broadband Internet connection

Storage: 50 GB free space required

2.Information and data

Users need a steam account to login and play.

Credit information for cosmetic items.

3.Economics (skip)

4.Control and security

Battle Eye

-to track player's cheating behavior.

-to lock player's account once he is cheating

-we provide report system for player to report cheaters.

5.Efficiency

Graphical level

Languages

Pre-Download content

6.Service

In the game, we provide customer service personnel who can communicate with players to solve problems encountered by players in the game. Our customer service staff is online 24 hours. When players need more advanced technical support, they can choose to send a ticket on our official website, and then our technical support will propose corresponding solutions based on the player's problem.

IN OUR APPLICATION THE USER WILL CHOOSE ONE TEAM TO JOIN, HE WILL SELECT A SQUAD AND USE EVERYTHING THAT HE CAN FIND TO FIGHT. DURING THE BATTLE, THERE ARE VARIOUS METHODS THAT CAN BE SELECTED BY PLAYERS TO HELP THEM CONTROL THE BATTLE GROUND.

IN OUR APPLICATION THE USER WILL NOT CHOOSE ANY PARK FIRSTLY, HE WILL CHOOSE THE ACTIVITIES HE IS LOOKING IN A PARK, THEN AFTER THE APPLICATION WILL SHOW THE PARKS THAT COVER HIS CHOOSES. THE APPLICATION WILL ALLOW USERS TO ACCESS MORE HELPFUL AND ACCOMMODATING PARK EXPERIENCE.

- CHOOSE ACTIVITIES
  - o AIR BATTLE
  - o GROUND BATTLE
  - o SEA BATTLE
- ADD FILTERS TO HELP USERS FIND WHAT'S HE IS LOOKING FOR MORE EFFICIENTLY BASED ON
  - o 10v10
  - o 20v20
  - o 30v30
  - o AIR BATTLE
  - o GROUND BATTLE
  - o SEA BATTLE
- INTERACTIVE SOCIAL MEDIA
  - o ACCESS TO TEAM CHAT
  - o EVENTS

2.9 PERFORM THE FEASIBILITY REPORT BY SUGGESTING THE POSSIBLE SOLUTIONS THAT CAN BE OFFERED BASED ON TIME/MONEY TERMS AND DO THE FOLLOWING FEASIBILITY

Developmental Cost (yr 0)			
New Hardware	$ 164,300.00		
compiler	$ 10,750.00		
tables and chairs	$ 2,000.00		
electrical work	$ 6,000.00		
Quality Assurance Tester	$ 60,000.00	x	2
Analyst	$ 63,000.00	x	2
Programmer	$ 65,000.00	x	8
Level designer	$ 55,000.00	x	3
UI designer	$ 56,000.00	x	2
IT	$ 58,000.00	x	4
Artist		x	4
animator	$ 57,000.00	x	4
Human Resources	$ 60,000.00	x	6
sound engineer/designer	$ 45,000.00	x	4
work lost	$ 5,000.00		
personnel	$ 25,500.00		
consulting	$ 4,000.00		
training	$ 2,000.00		
marketing / advertisement	$ 90,000.00		
total development cost	$ 828,550.00		
Operational cost			
Office rent			
administrative cost	$ 1,400.00		
licensing	$ 1,000.00		
salaries	$ 20,000.00		

Office Supplies	$ 20,000.00		
maintenance	$ 1,000.00		
hourly wage	$ 1,500.00		
total operational cost	$ 44,900.00		
Benefits			
Game Sales	$ 260,000.00		
reduction in data processing	$ 4,500.00		
reduction in inventory cost	$ 6,500.00		
reduction in personnel cost	$ 18,000.00		
reduction in overtime cost	$ 10,500.00		
Bank Money	$ 55,000.00		
reduction in hardware maintenance cost	$ 5,000.00		
total yearly benefit	$ 359,500.00		

2.9.1 TECHNICAL

USERS CAN EASILY DOWNLOAD THE APP AT STEAM OR EPIC GAMES. THE APPLICATION CAN BE INSTALLED IN ANY COMPUTER AND LAPTOP.

THE PROJECT IN THE FIRST VERSION WILL ONLY COVER THE MAIN BATTLE GROUND BECAUSE IT WILL BE DEVELOPED BY THREE STUDENTS OF PROGRAMMING THAT NEED MORE TIME TO LEARN A PROPER WAY TO CODE A BIGGER APP. THE FIRST VERSION PROJECT MUST BE DONE UNTIL 27/11/2022 AND TO COVER THIS DEADLINE THE STUDENTS WILL DEVELOP THE GAME USING A HYBRID LANGUAGE. AFTER INTEGRATING THE GAME INTO THE MARKET, WE WILL ADD MORE DLC AND IN-APP PURCHASE SERVICES TO THIS GAME.

2.9.2 OPERATIONAL

THE OPERABILITY OF OUR GAME IS VERY FRIENDLY TO BEGINNERS. WE ALSO PROVIDE A DETAILED NEW PLAYER TUTORIAL. HOWERER, AS A COMPETITIVE GAME, WE PROVIDE ENOUGH SPACE FOR PLAYERS TO MICROING, AND THERE IS A CERTAIN UPPER LIMIT OF OPERATION FOR ALL PLAYERS. THIS ENSURES THE GAMING EXPERIENCE FOR NOVICES AND SKILLED PLAYERS.

2.9.3 ECONOMICAL (USE NPV, ROI (8%) AND BREAK-EVEN METHODS): PROVIDE EXCEL SHEET ONLY FOR THE PROPOSED SOLUTION

THE GAME CAN BE DOWNLOADED AT STEAM AND EPIC GAMES. THE PROFIT CAN BE PROVIDED BY:

59.99$ FOR EACH PLAYER, INCLUDING IN-APP PURCHASE.

ROI 76.87%

NPV $ 492,556.58

2.10 SCHEDULING, TIMELINE: GANTT

START DAY: 14TH MAY

MIDTERM PRESENTATION: 25TH JUNE

END DAY: 23RD JULY (FINAL PROJECT PRESENTATION)

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FUNCTIONAL REQUIREMENTS

A FUNCTIONAL REQUIREMENT DEFINES A SYSTEM OR ITS COMPONENT. IT DESCRIBES THE FUNCTIONS A SOFTWARE MUST PERFORM. A FUNCTION IS NOTHING BUT INPUTS, ITS BEHAVIOR, AND OUTPUTS.

FUNCTIONAL SOFTWARE REQUIREMENTS HELP YOU TO CAPTURE THE INTENDED BEHAVIOR OF THE SYSTEM. THIS BEHAVIOR MAY BE EXPRESSED AS FUNCTIONS, SERVICES OR TASKS OR WHICH SYSTEM IS REQUIRED TO PERFORM.

HERE, ARE SOME EXAMPLES OF FUNCTIONAL REQUIREMENT:

1. THE GAME WILL AUTOMATICALLY RECORD THE PLAYER'S KILL AND DEATH DATA
2. THE GAME CAN PROVIDE PLAYERS WITH VARIOUS SETTING OPTIONS.
3. THE GAME CAN RECORD THE PREFERENCES OF VARIOUS PLAYERS.
4. ONLY THE TEAM LEADER CAN GIVE ORDERS TO THE PLAYERS.
5. THE GAME CAN MATCH PLAYERS TO OPPONENTS OF THE SAME LEVEL
6. THE GAME CAN RECORD USER'S PLAYER PROGRESSION

3.1 USER STORIES

USER STORIES			
AS A	I WANT TO	SO THAT	TEST CRITERIA
PLAYER	TO LOGIN	BE ABLE TO INSERT USERNAME AND PASSWORD TO LOGIN INTO THE APPLICATION	
PLAYER	CREATE A TEAM	CAN PLAY WITH FRIEND	
PLAYER	SEARCH SERVERS	CAN FIND THE FAVOURITE MAP OR MODEL	
PLAYER	CREATE A PERSONAL SERVER	CAN MANAGE THE SERVER AND ADD DIFFERENT ELEMENTS	
PLAYER	REPORT CHEATER	BE ABLE TO HAVE COMFORTABLE GAME EXPERIENCE	
PLAYER	SAVE PREFERENCE	BE ABLE TO SAVE PLAYER'S PREFERENCES	

PLAYER	CANCEL THE GAME	BE ABLE TO CANCEL THE GAME WHEN PLAYER FIND THE MATCHED GAME	
PLAYER	MANAGE/EDIT SERVICE PROVIDER	BE ABLE TO GET THE LIST OF SERVICE PROVIDER	
PLAYER	PURCHES	CAN HAVE DIFFERENT PERFORMANCE	
PLAYER	BE REWARDED	BE ABLE TO CONCENTRATE ON THE FIGHT	
PLAYER	ENABLE / DISABLE SERVICE LIST	BE ABLE TO ENABLE/ DISABLE INFORMATION WHICH SERVER PROVIDES	
PLAYER	EDIT SERVICE PROVIDER INFO	BE ABLE TO HAVE OTHER PLAYERS WHO HAVE SAME PREFERENCE LIKE YOU	

3.2 BPI

	BPI	EFFORT POINTS	REASONING/ARGUMENTS	PRIORITY	ADDED COMMENTS	ADDED COMMENTS
MANDATORY	JON A GROUP	L	BASED ON A PLAYER SELECTING A TEAM TO JOIN. THEY CAN BE SELECT BYTEAM LEADER.	4	ADD PLAYER TO A TEAM; TEAM LEADER CAN POINT TARGET FOR HIS GROUP ; TEAM MEMBERS CAN COMMUNICATE WITH EACH OTHER.	

MANDATORY	ROLE	M	TO ALLOW PLAYERS TO PLAY VARIOUS ROLES TO FIGHT WITH OTHER PLAYERS.	3	PILOT(COMMANDER); GUNNER; ENGINEER; ASSAULT FORCE.	
MANDATORY	VICTORY CONDITIONS	M	THE TEAM THAT REACHES THE UPPER LIMIT FIRST WINS.	12		
MANDATORY	VEHICLES	L	PLAYERS CAN USE DIFFERENT VEHICLES TO DOMINATE THE COMBAT.	7	TRAIN, TANK, PLANE, WARSHIP...	
MANDATORY	MATCHING SYSTEM	M	THE PLAYER WILL BE MATCHED TO THE GAME THAT THEY SELECTED.			

3.3 USE CASES

ID:	**UC-1**
TITLE:	**PLAY AT MODE 10 VC 10**
DESCRIPTION:	**PLAYERS LOGGED IN CAN CHOOSE FROM THE DIFFERENT MODES FOR THE GAME.**
PRIMARY ACTOR:	PLAYER
PRECONDITIONS:	**PLAYER IS LOGGED IN THE GAME**
POSTCONDITIONS:	**PLAYER WILL BE MATCHING WITH OTHER PLAYERS FOR THE GAME**
MAIN SUCCESS SCENARIO:	**1. PLAYER WILL SELECT THE BATTLE MODE SUCH AS NAVAL** **2. PLAYER WILL SELECT THE SIZE OF BATTLE SUCH AS 10VS10** **3. PLAYER SELECT TO QUEUE WITH GROUPE** **4. PLAYER CLICK ON THE "PLAY" BUTTON** **5. PLAYER WILL BE MATCH WITH OTHER PLAYER AND ENTER THE GAME**
EXTENSIONS:	**1A. NOT ENOUGH PLAYERS.** **— 1A1. A MESSAGE WILL BE DISPLAY AND THE PLAYER COULD CHOOSE TO STAY IN THE QUEUE OR CHANGE GAME MODE.** **— 1A2. AI PLAYERS WILL FILL IN THE GAME IF THE QUEUE TIME EXCEED A CERTAIN AMOUNT, BUT AI PLAYER WILL NOT TAKE THE ROLE OF PILOT**
FREQUENCY OF USE:	**ONCE EVERY TIME BEFORE MATCHING**
STATUS:	**PENDING REVIEW**
OWNER:	**MING HAO WU**
PRIORITY:	**P3 – MEDIUM**

ID:	UC-2
TITLE:	SELECT A PILOT TO PLAY
DESCRIPTION:	PLAYERS CAN CHOOSE A ROLE TO COLLABORATE WITH HIS CREW TO FIGHT WITH OTHER PLAYERS
PRIMARY ACTOR:	PLAYERS
PRECONDITIONS:	PLAYERS ENTER A GROUP
POSTCONDITIONS:	PLAYERS SELECT PILOT TO PLAY
MAIN SUCCESS SCENARIO:	1.PILOT IS THE COMMANDER OF A VEHICLE. 2. PILOT CONTROL THE VERTICAL 3. PILOT CAN TELL THE CREW WHAT SHOULD THEY DO.
EXTENSIONS:	2A. ALL PLAYERS SELECT THE SAME ROLE. — 2A1. SYSTEM MANAGES THE CREW MEMBER AUTOMATICALLY. 3A.AI PLAYER IS IN THE MATCH — 3A1. AI PLAYERS WILL AUTOMATICALLY FILL THE ROLE THAT AREN'T SELECTED BY PLAYERS, HOWEVER AI PLAYERS WILL NEVER TAKE THE ROLE OF PILOT(COMMANDER).
FREQUENCY OF USE:	EVERY TIME BEFORE THE GAME STARTS.
STATUS:	PENDING REVIEW
OWNER:	HONGFEI LIU
PRIORITY:	P3 – MEDIUM

ID:	UC-3
TITLE:	PLAYER CHOOSING SMALL VEHICLE
DESCRIPTION:	PLAYERS CAN CHOOSE DIFFERENT TYPES OF SMALL VEHICLES IN THE GAME OR CHOOSE TO STAY ON LARGE VEHICLES TO OPERATE
PRIMARY ACTOR:	PLAYERS
PRECONDITIONS:	PLAYERS MUST ENTER A VEHICLE
POSTCONDITIONS:	PLAYERS SELECT A VEHICLE TYPE
MAIN SUCCESS SCENARIO:	1. EVERY LARGE VEHICLE HAS A PLAYER TO COMMAND AND CONTROL 2. Players who control large vehicles can modify it 3. Each vehicle is equipped with weapons with different firepower 4. Small vehicles are more mobile than large vehicles 5. The damage of large vehicles is higher than that of small vehicles 6. Small vehicles can be snatched by the enemy
EXTENSIONS:	1.NOT ENOUGH PEOPLE DRIVING THE VEHICLE The system will randomly select a player to drive the vehicle
FREQUENCY OF USE:	EVERY TIME BEFORE THE GAME STARTS.
STATUS:	PENDING REVIEW
OWNER:	TAO WANG
PRIORITY:	P3 – MEDIUM

3.4 Tasks / Backlog

4

NON-FUNCTIONAL REQUIREMENTS

A NON-FUNCTIONAL REQUIREMENT DEFINES THE QUALITY ATTRIBUTE OF A SOFTWARE SYSTEM. THEY REPRESENT A SET OF STANDARDS USED TO JUDGE THE SPECIFIC OPERATION OF A SYSTEM. EXAMPLE, HOW FAST DOES THE WEBSITE LOAD?

A NON-FUNCTIONAL REQUIREMENT IS ESSENTIAL TO ENSURE THE USABILITY AND EFFECTIVENESS OF THE ENTIRE SOFTWARE SYSTEM. FAILING TO MEET NON-FUNCTIONAL REQUIREMENTS CAN RESULT IN SYSTEMS THAT FAIL TO SATISFY USER NEEDS.

1. USERS MUST CHOOSE THEIR NICKNAME ON FIRST LOGIN. THE NAME COULD BE REPEATED HOWEVER EACH PLAYER WILL BE ASSIGN A UNIQUE NUMBER ID

3. USERS MUST BE ABLE TO ADD, REMOVE FRIENDS, ALSO THEY CAN ADD PEOPLE TO BLACKLIST.

3. SYSTEM WILL SIGN PLAYERS INTO DIFFERENT GROUPS.

4. SYSTEM WILL BALANCE NUMBERS OF PLAYERS OF TWO SIDES.

5. **Once the player is disconnected, the system will reconnect.**

6.The system will detect wether the player is cheating or not.

HERE, ARE SOME EXAMPLES OF NON-FUNCTIONAL REQUIREMENT:

7. USERS MUST CHANGE THE INITIALLY ASSIGNED LOGIN PASSWORD IMMEDIATELY AFTER THE FIRST SUCCESSFUL LOGIN. MOREOVER, THE INITIAL SHOULD NEVER BE REUSED.

8. EMPLOYEES NEVER ALLOWED TO UPDATE THEIR SALARY INFORMATION. SUCH ATTEMPT SHOULD BE REPORTED TO THE SECURITY ADMINISTRATOR.

9. EVERY UNSUCCESSFUL ATTEMPT BY A USER TO ACCESS AN ITEM OF DATA SHALL BE RECORDED ON AN AUDIT TRAIL.

10. A WEBSITE SHOULD BE CAPABLE ENOUGH TO HANDLE 20 MILLION USERS WITH AFFECTING ITS PERFORMANCE

11. THE SOFTWARE SHOULD BE PORTABLE. SO MOVING FROM ONE OS TO OTHER OS DOES NOT CREATE ANY PROBLEM.

12. PRIVACY OF INFORMATION, THE EXPORT OF RESTRICTED TECHNOLOGIES, INTELLECTUAL PROPERTY RIGHTS, ETC. SHOULD BE AUDITED.

|	DESCRIPTION	EXAMPLES
OPERATIONAL	THE PHYSICAL AND TECHNICAL ENVIRONMENTS IN WHICH THE SYSTEM WILL OPERATE	• CAN RUN ON HANDHELD DEVICES • CAN WORK ON ANY WEB BROWSER

|		
PERFORMANCE	SPEED, CAPACITY AND RELIABILITY OF THE SYSTEM	• INTERATION BETWEEN THE USER AND THE SYSTEM SHOULD NOT EXCEED 2 SECS • CAN SUPPORT 200 SIMULTANEOUS USERS
SECURITY	WHO HAS ACCESS TO THE SYSTEM UNDER WHAT CIRCUMSTANCES	• ONLY DIRECT MANAGERS CAN SEE PERSONNEL RECORDS OF STAFF • CUSTOMER CAN SEE THEIR ORDER HISTORY ONLY DURING BUSINESS HOURS
CULTURAL AND POLITICAL	CULTURAL, POLITICAL FACTORS AND LEGAL REQUIREMENTS THAT AFFECT THE SYSTEM	• SHOULD DISTINGUISH DIFFERENT CURRENCIES • PERSONAL INFORMATION IS PROTECTED IN COMPLIANCE WITH THE DATA PROTECTION ACT

5

TECHNICAL REQUIREMENTS

5.1 FLOWCHART
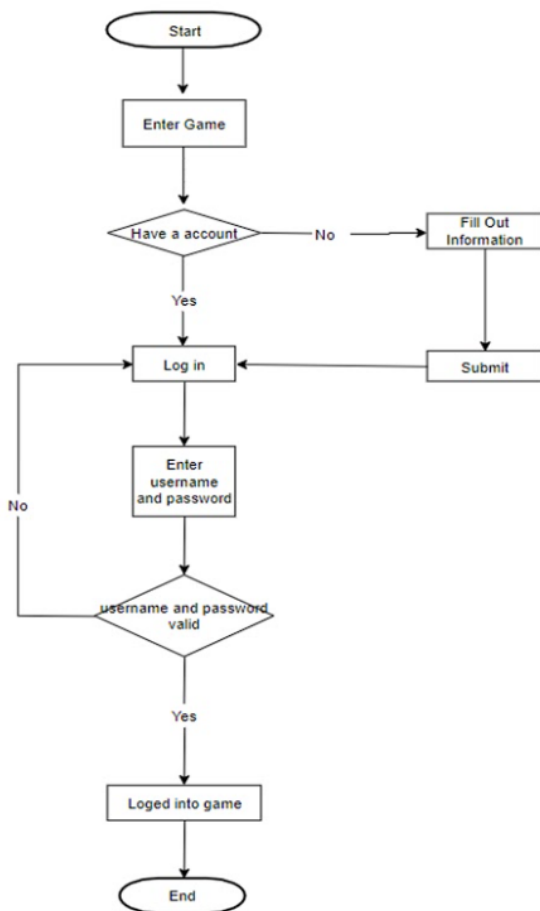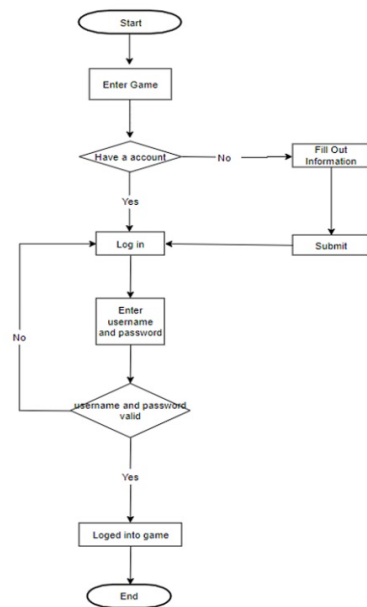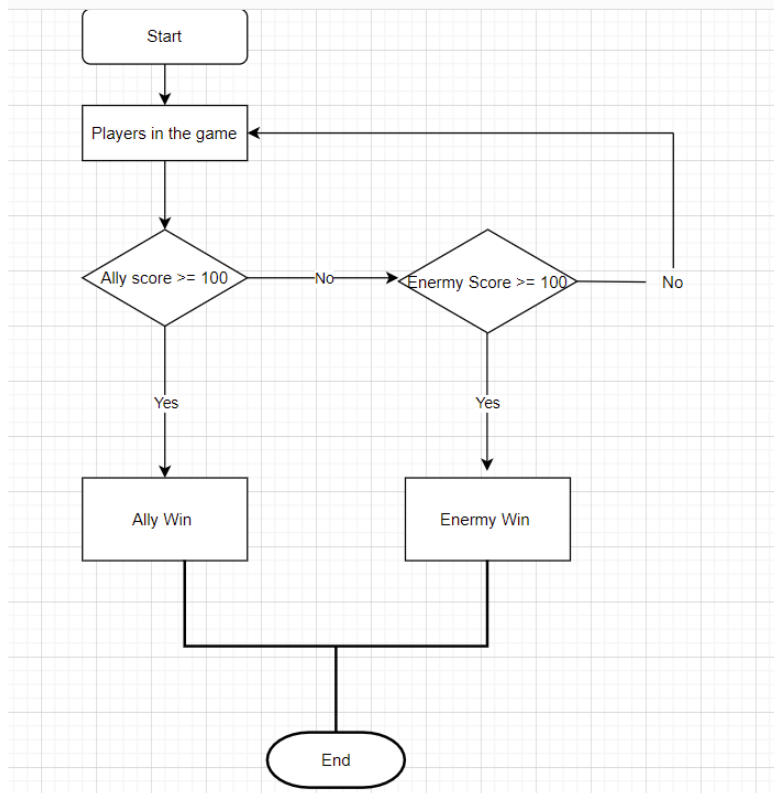
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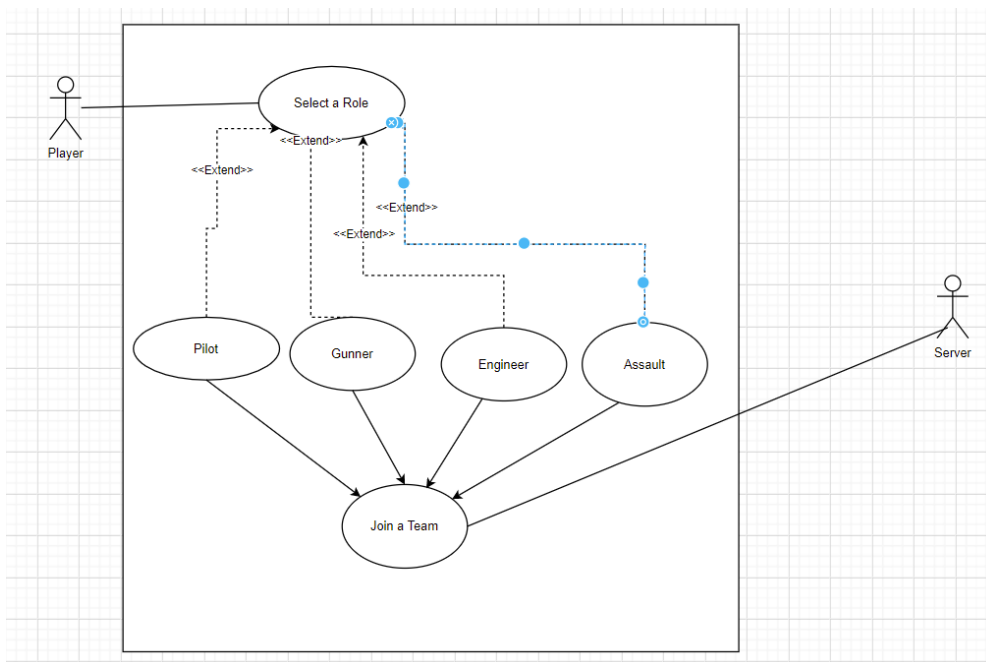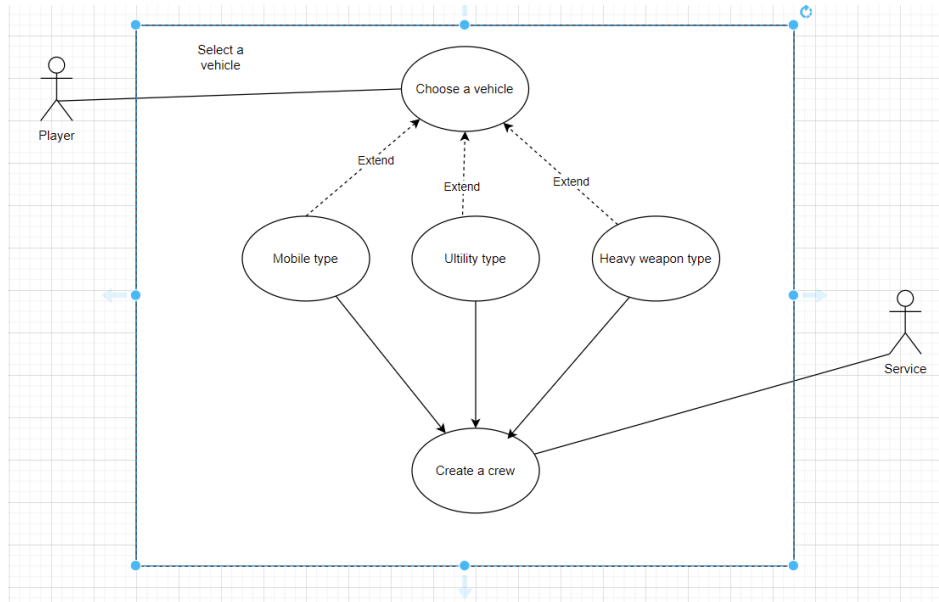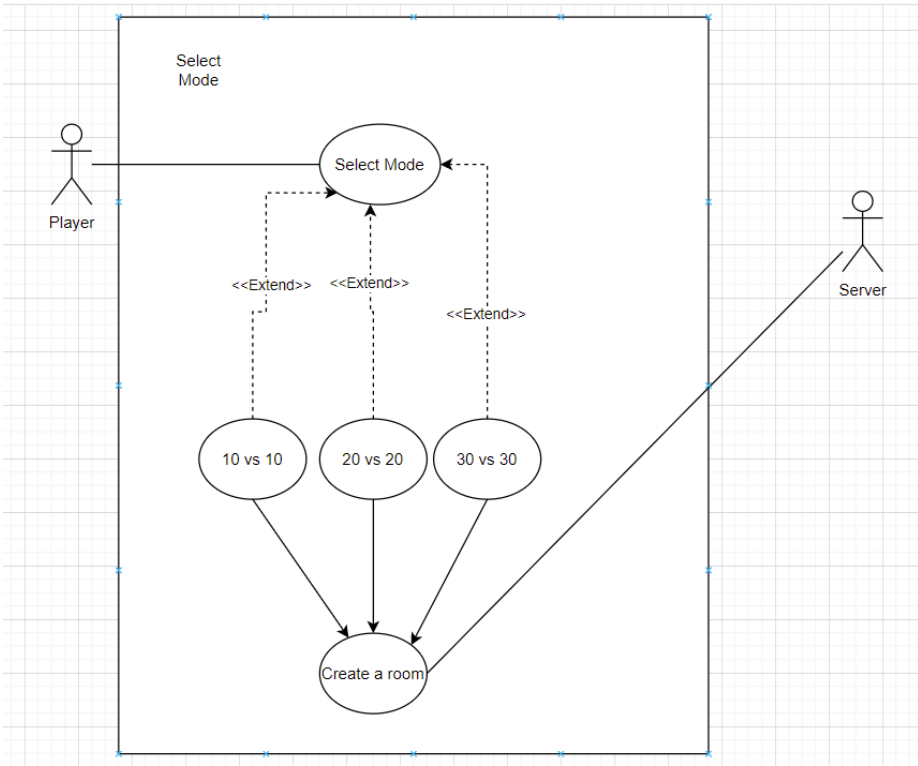
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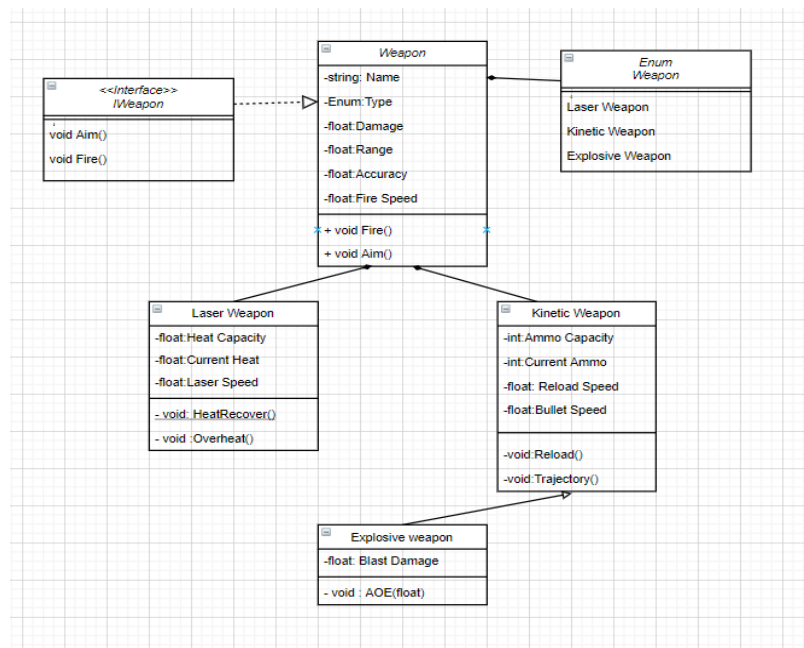
6

TECHNICAL REQUIREMENTS
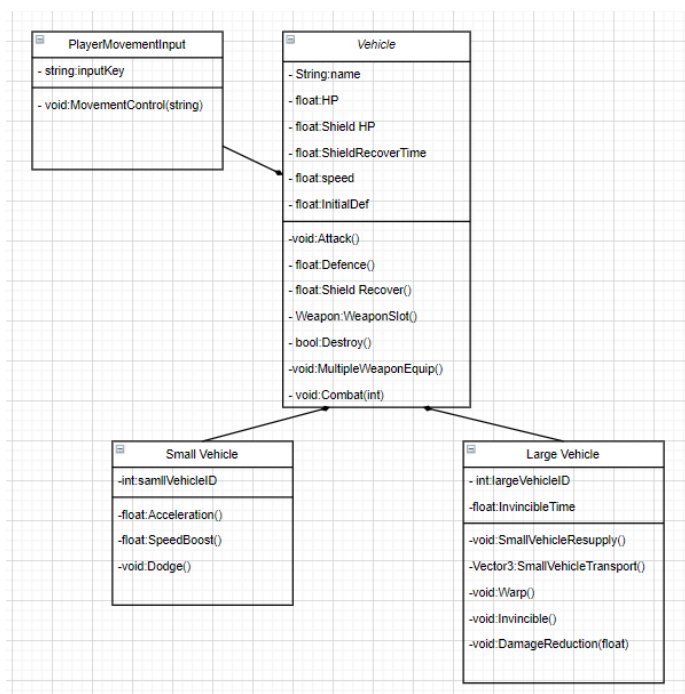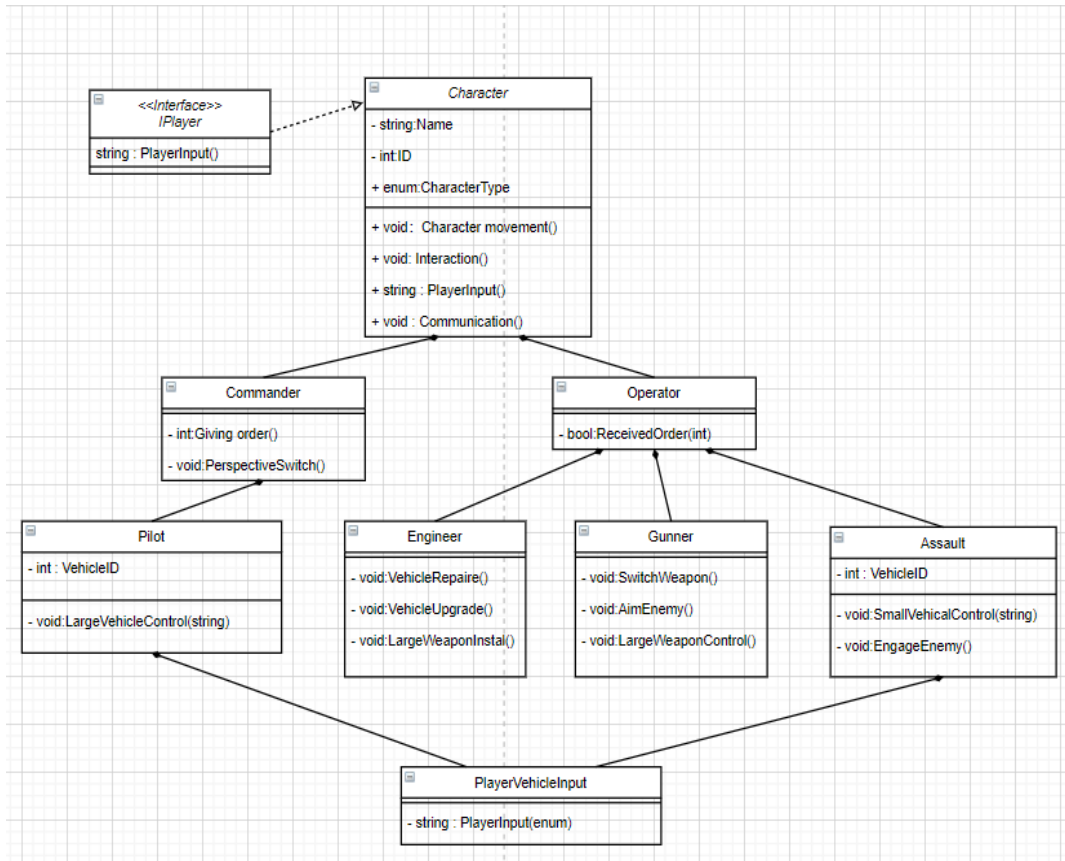
6.1 DATABASE STRUCTURE

ALL DATABASE CHANGES MUST BE APPROVED BY A DBA.

COLUMN NAME	DATA TYPE	NULLABLE	DEFAULT VALUE	COMMENTS	ALLOWED VALUES	SEQUENCE

6.2 CLASS DIAGRAM

Character
- string:Name
- int:ID
+ enum:CharacterType
+ void : Character movement()
+ void: Interaction()
+ string : PlayerInput()
+ void : Communication()

<<Interface>>
IPlayer
string : PlayerInput()

Commander
- int:Giving order()
- void:PerspectiveSwitch()

Operator
- bool:ReceivedOrder(int)

Pilot
- int : VehicleID
- void:LargeVehicleControl(string)

Engineer
- void:VehicleRepaire()
- void:VehicleUpgrade()
- void:LargeWeaponInstal()

Gunner
- void:SwitchWeapon()
- void:AimEnemy()
- void:LargeWeaponControl()

Assault
- int : VehicleID
- void:SmallVehicalControl(string)
- void:EngageEnemy()

PlayerVehicleInput
- string : PlayerInput(enum)

PlayerMovementInput
- string:inputKey
- void:MovementControl(string)

Vehicle
- String:name
- float:HP
- float:Shield HP
- float:ShieldRecoverTime
- float:speed
- float:InitialDef
- void:Attack()
- float:Defence()
- float:Shield Recover()
- Weapon:WeaponSlot()
- bool:Destroy()
- void:MultipleWeaponEquip()
- void:Combat(int)

Small Vehicle
- int:samllVehicleID
- float:Acceleration()
- float:SpeedBoost()
- void:Dodge()

Large Vehicle
- int:largeVehicleID
- float:InvincibleTime
- void:SmallVehicleResupply()
- Vector3:SmallVehicleTransport()
- void:Warp()
- void:Invincible()
- void:DamageReduction(float)

6.3 E.R.D

N/A

6.4 Mockup

N/A

7

TOUCH POINTS

7.1 Other Impacts

7.2 Future Implementations

8

QUESTIONS