

Project Proposal (PP)

Valhalla's Deception



LIGHTNING FIRE FATHER



A GAME PROPOSAL BY LIGHTNING FIRE FATHER STUDIO
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Overview of Lightning Fire Father

LFF is composed of 6 people;

Sami Uysal is our Project Manager

Khesi Knight as the Lead Programmer

Vanessa Mendez as the Artist

Chaye Foster as the Market Researcher

Oliver Dawes as the Game Designer

David Munoz as the Sound Engineer

Commercial Overview for Valhalla's Deception

Platform: The lead platforms would be PC.

Game type/genre: Valhalla's Deception is an 'Action Adventure Hack and Slash' 2d side scroller Platform game.

Strap Line: "Fight as a Viking Would! We fight for Revenge! Redemption! and Honour! Victory or Death, Which Do you Choose?"

Target Audience: Our game will be released on pc and will be available worldwide, as we want to target as many potential players as possible. The main target audience will be teenagers and young adults (12+) as they dominate the gaming industry.

USPs: Our unique selling points for the game are: a 'Viking Rage' mode that temporarily adds a third jump and fire damage to the players attacks, alternate endings based on how you play through the game, dynamic music depending on what the player is doing at that time in the game and the ability to use different types of weapons (such as spears and axes) rather than staying with just the one type throughout the game.

Age rating: Valhalla's deception is going to be rated 12. There will be some acts of violence for example when the player uses a weapon on an enemy, a pixelated animation of red symbolising blood will show.

Number of Players: Valhalla's deception is a single player game. We do not plan on expanding the game to multiplayer in the future.

Similar Titles on the market: There are a few similar titles on the market such as Jotun;Valhalla Edition and Assassin's Creed Valhalla where both follow similar aspects related to our game (Norse and Viking mythology), but there isn't no exact or relatively similar style of titling compared to 'Valhalla's Deception'. In addition to this the competition is somewhat immense because Assassins Creed Valhalla is a new release game and does carry similarities.

Development Team size and roles: In our team we have seven members, Sami is the project manager, Khesi is the lead programmer & database engineer, Vanessa is the lead artist & tester,

Chaye is the market researcher & in charge of community service, David is the lead designer, Oliver is the community manager and Nasir is in charge of audio & social media. Although each member has their own role, we will be supporting each other and could possibly be doing extra work.

Our team has different tastes regarding games and genres, so we are joining our different ideas to create this game giving a bit of each of our personalities.

Timeline:

(how long will the project take to complete) – Gantt Chart. **Go into lots more detail on each section and add parts that we know are going to be in the game**

Memory Limitations: As a team we want to develop a 2D platformer game to give players the experience of new game mechanics and to showcase our innovativeness.

For Valhalla's deception the initial size of the games downloaded will not be as large as compared to other games. With the addition of all the attributes Lightning Fire Father will aim for Valhalla's Deception to be downloaded at a size of only 500MB max and with the memory limitations of users having to need a minimum of 2GB RAM in order to actually play and run the game without any issues occurring like stuttering or lag/preventing crash reports. However, overtime there will most likely be new found bugs or issues, and with development and maintenance we will update the game which may mean users have to download more, but it will most likely not be anything too major such as a couple MB's (based upon the issue/bug size).

Game Design

Game Concept:

Valhalla's Deception is a Nordic based side scrolling action adventure game that will have you entangled in hack and slash gameplay. The concept of the game introduces the fable within Nordic mythology as a God of the old realm and his struggle to regain back his throne. Showing the trials and tribulations, the backstabbing, the lies and deceit through the eyes of the Gods within the Nordic realm of Valhalla.

This game will be action packed and with a sense of redemption. The game will have one main character that you play with and with the added-bonus of being able to either gain allies or other God like abilities along the way. The main character can use special 'Viking rage' boosts when enough enemies have been vanquished and pick up additional health, stamina points, and weapons along the journey.

Key Gameplay Aspects:

- This is a single player gaming experience
- Players can expect to enjoy hours of hack and slash, gore fuelled, bloodbath gaming.
- Since you are playing as a Nordic God, you get God-like abilities, like "Viking Rage" which makes a player less sustainable to damage, increases jump longevity, speed and stamina during gameplay.
- Players can also gain new God-like abilities from other vanquished Gods or have the option to allow them to join the cause and travel with them side by side.
- Players can ride on animals and boats.
- Players can collect new weapons to fight with.

Key Game Mechanics:

In our game we will have a few core mechanics which will help the player pass through our levels with a bit of ease if they have the skills to combine the mechanics. Our core game mechanics will be:

- Mount Riding
 - Item durability/ Changeable weapons
 - Jump/ Dashing
 - Player stats
1. Mount Riding
 - There will be a few levels where the user may need to ride a boat to get across water or ride a bear to have more speed and the bear will deal more damage.
 2. Item Durability/ Changeable Weapons
 - When the players defeat enemies or find chests, they can pick up 1 weapon and put it in their inventory. The weapons will be a bit more powerful than their current ones but have a bad durability, e.g. 1-10 hits.
 3. jump/Dashing
 - As this game is going to be a Multiplatform game, the player should have a good amount of movement which includes the ability to jump and dash. These will allow the player to combo basic attacks and abilities.
 4. Player Stats
 - The player will have 4 stats which could help the player.

- i. Health Points (HP): the player will have a certain amount of health and when this hits 0 they will die.
- ii. Stamina: this stat will let the player run, or use our core mechanics, if they run out it will slowly regenerate if they stand still or walk.
- iii. Ability: this stat will be similar to a mana stat where the player will have x amount of abilities and each will take a certain amount of ability points.
- iv. Viking Rage: this is a special type of stat. The Rage stat will only regenerate if the player kills a certain number of enemies. This stat allows the user to use the "Viking Rage" Ability which gives the player huge buffs like a double jump, increased attack and resistance to enemy attacks which last for a certain amount of time.

Software Engineering & System Architecture

Software production approach (SDLC)

The systems development life cycle is to describe a process for planning, design, develop, testing and then deploying the game.



(Figure 1)

We chose to go with the agile method because it allows our team to be more flexible when it comes to doing different stages of development. The waterfall method is a very linear approach and as we would complete a stage and move onto the next, we wouldn't be able to backtrack and improve things if there were bugs for example. So, it means that to make changes would be very difficult. Testing will also be delayed until after completion, so if there were bugs (which is very likely as this is our first time as a team creating a video game) we would not be able to fix them. With this method we are able to go back to certain stages if needed. This indicates that this method would be best suited for us to ensure that the quality is good as it allows us to make changes.

For the planning stage we brainstormed ideas of what our game could be about, we decided on a video game about Vikings. However, as we have a limited time we won't be able to have all the features such as the abilities. The main characters are Ragnar, Odin and Loki. Ragnar rules over Valhalla, Odin is the main villain teamed up with Loki.

The designs of the characters and levels have been created by Vanessa (lead artist) which can be found down below. In the developing stage we will be gathering data to help support the game for example by integrating code that counts how many times the game crashes. This will also help us reduce the number of bugs during the testing stage then we will be doing low level testing for refining bugs, testing to see if the UI works and user satisfaction.

The game will be released to the public and we will gather data about how satisfied they are by releasing questionnaires via social media and to members that have chosen to subscribe to our email. We will consider implementing new features that our customers would like to see added.

We are planning for our UI to look something similar to this:



(Figure 2) Game design Background

Figure 2 shows platforms (coloured white) that the character can jump on, obstacles (in green) that have to be destroyed to keep moving, enemies (red) that can be slayed or avoided, a special item (key on the top) that has to be collected to be allowed to continue to the next level. When the object is in your possession, the guardian (fire-like monster in the right corner) would disappear, and you can continue to the next map. In the background, the giant deer might be animated and would be triggered if the character stays on top of a specific point on the map.

Requirements (David)

We are going to gather information from customers about what features of our game they enjoy and things they would like to see improved. The best method to do this will be to use a questionnaire. We'd use various questions in our questionnaire to acquire the most useful information such as, "would you recommend our game to a friend?", "which aspects of the game intrigue you the most?", "Which aspects of the game do you detest the most?" Having questions like these will allow us to better construct our game around what the players and investors want. They will also allow us to fix any outstanding problems people may have with the game during our maintenance phases.

We will make use of intellectual property to keep our work legal, avoiding piracy, and aiding us in possible conflicts between other organisations.

These consist of:

- Trade secret

- Copyright
- Patent
- Trademark

We are also responsible for making the game ethical and safe to play in different regions. This can cause us to make minor changes in our game. A good example is how in china, world of warcraft had to censor most of their gore, bones, and skulls so that it can be sold.

When it comes to online transactions, we will make sure to make it very obvious on what the customer is buying. After initially purchasing the game, the player can then choose to spend more money on the game through micro transactions

We will be marketing our game to a massive market of players involved in RPG, Fantasy, and Hack and slash. RPG Fantasy games are mostly successful as players like to explore uncharted territories in which they have never been, and our game will be a new experience for many. The fact that there are so many different varieties of Fantasies and RPGs show that it is a thriving industry.

We must avoid controversy as much as possible as controversy can kill the sales on games, for instance, some games have completely been forgotten simply because there have been rumours about them. We can avoid controversy by making sure we don't offend people. For example, we must involve a variety of characters of different races to make sure that we don't support racism. An example of a game that has controversy is Mortal Kombat. Mortal Kombat had so much gore and blood that it was banned in multiple countries such as Brazil, South Korea, Australia Indonesia, Japan and more countries.



Figure 3

Risk Analysis

There are many things that can harm our project development, as this is our first time creating a project document as a team, we may sometimes miscommunicate and overlap with things that are mentioned. Also, poor scheduling of meetings could lead to work becoming incomplete which could lead to a delay in our game being released. Or it could mean that we add less features to the game to get completed in time. Due to a lack of programming experience there are likely to be bugs which will affect the performance of the game. We aren't planning to make our game multiplayer, so we don't have to necessarily worry about security issues, however there is always a chance of piracy. There is also a slight possibility that we could unintentionally go over the agreed limit of our budget meaning we will either have to; stop creating the game or cut parts out. There is also the possibility that the story we have created may be unenticing to the general public and our target age group. An ineffective, unenticing, unengaging storyline can be detrimental to the success of "Valhalla's Deception" leaving a feeling of dissatisfaction between the players and the game. As this being our first launch title game, we must ensure there is not a feeling of boredom while playing "Valhalla's Deception".

System Higher - Architecture

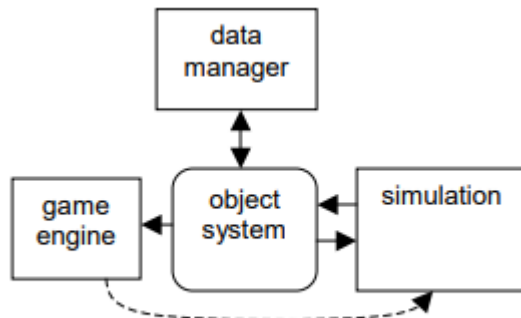
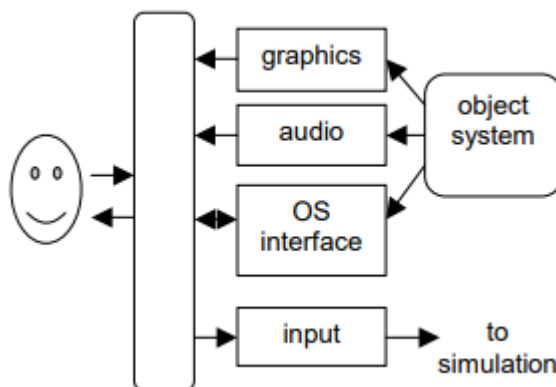


Figure 1: Top-level Components.

(figure 4)

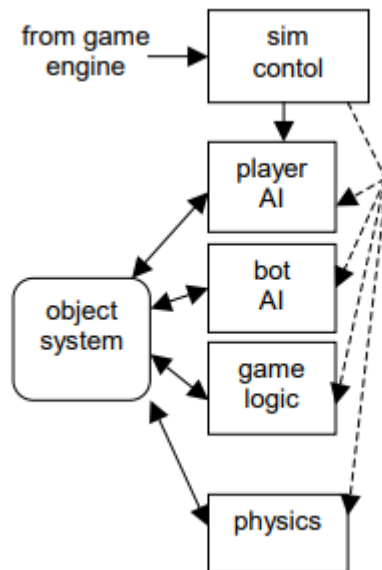
The game engine will present the UI to the player and allow them to enter inputs, this is where figure 3 will be shown and audio will be played. When the user enters an input such as they want to move forward in the game the simulation will update the state of the game. The storage of the game or when the player wants to save/load the game will be managed by the data manager. All the objects in our game will be described by the object system such as the platforms, the key, the giant deer in the background, green obstacles in the background and the guardian.



The game engine: This will interact with the player showing them the graphics of the game, the OS interface is going to be windows as we are only aiming to release this game on pc. If the game is successful, then we will work on having available for other devices with different operating systems such as android and iOS. The inputs we are going to have in our game is

(Figure 5)

the ability to move forward (a), backwards, (d), jump (spacebar), Viking rage ("r"), move onto the next level (left click) and open the menu to quit the game or load a level (escape).



The simulation diagram is in control for the rules of the game. In our game the player will not be able to fall through a platform, if the player falls off a platform (miss the jump) they will fall through the map and the game will display a message “level failed try again”, different audio will play when this happens. When the player is killed by an enemy the same thing will occur, any attacks on an enemy or onto a player will play a pixelated animation of blood. When the player attacks with a weapon, a swing animation will be activated.

(Figure 6)

Enemies will be controlled by a bot AI and they will automatically walk forwards and backwards on a platform. The physics of the game will include jumping, the platform will be a solid preventing the player/ enemies from falling through. The key will be sitting on the platform, waiting for the player to collect it to move onto the next level.

System Network – Architecture

As Valhalla's Deception is a single player game with a small download weight, the idea is to have it just hosted online into a server where the Developing Team could receive data and analytics of the players.

For security reasons, a client-server system is more appropriate although peer to peer transmissions could provide a better performance.

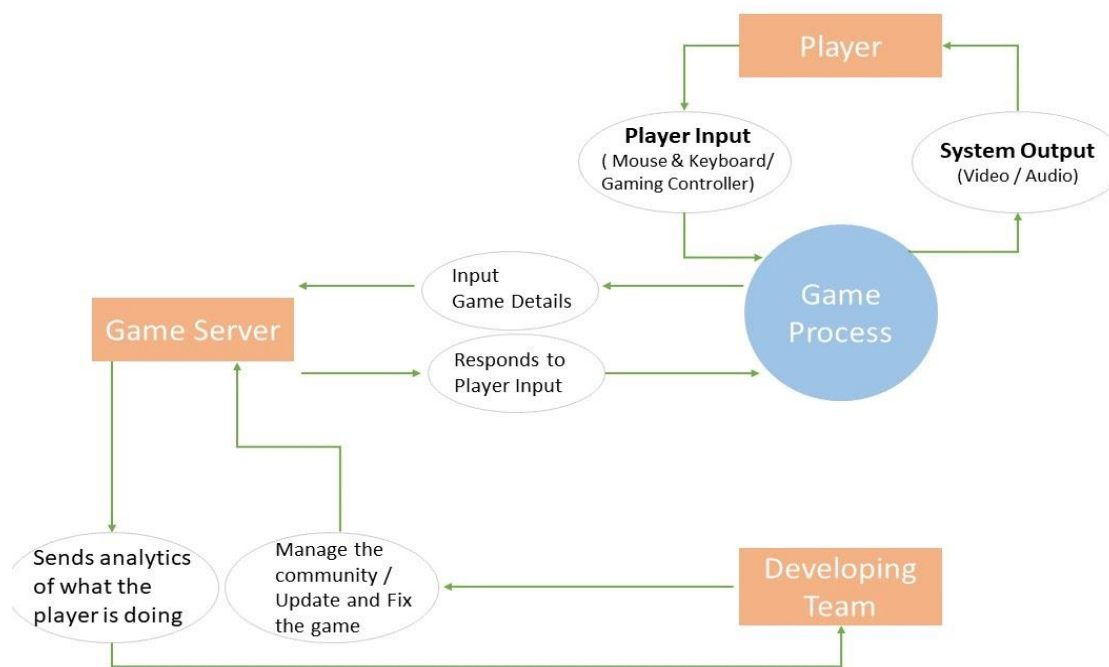


Diagram 1.

Diagram 1 shows how the flow of data from the player input travels through different systems causing a cycle of response. When the player uses a command, that input goes into the Server that answers back with the action assigned to that command. The Server also sends data to the Development Team such as Player Analytics (Time Played, Player Retention, New Players, Bugs, Player Actions...). From there, the Developing Team takes different actions such as updating and

fixing the game, moderate the community (ban players for violating Terms of Service, cheating, bad behaviour) or even create special events to attract new players.

Managing the behaviour of the community is the developer's responsibility and not the server's provider so regarding in-game cheating, a way of knowing if that is happening would be for the developing team to check and monitor player's analytics such as the time they took to complete the game or abnormal amounts of experience gained on each level. A way of preventing people using cheats could be the game reacting to that cheat and jumping into a different line of code that makes the character not move and to continue, the player has to exit the game and load the last saving point.

To prevent cheaters altering or stealing data, some methods such as to encrypt data, and to give each packet (data) different sequence numbers, so if the server receives that data with the wrong sequence number it will instantly perceive it as cheating.

For the GDPR compliance, an implementation of consent such as accepting the Terms of Service would be added in the game's UI the first time they play.

Game context Diagram

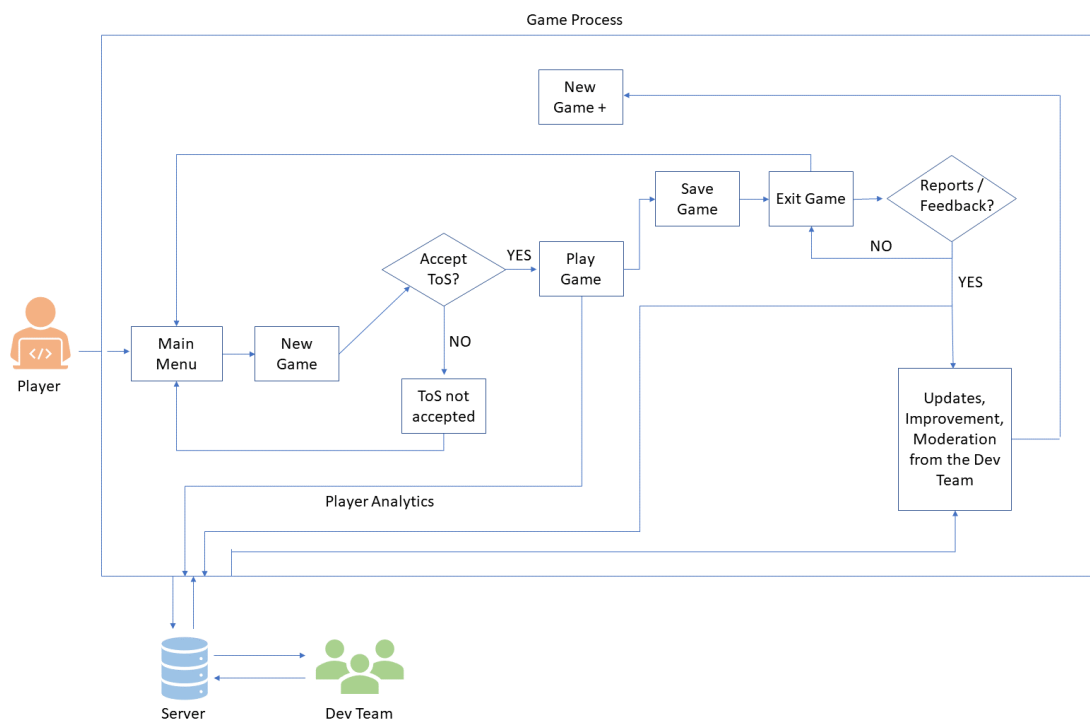


Diagram2

Player's interaction with the game:

PLAYER INPUT

- Player accesses the Game and accepts Terms of Service the first time they play.

- Starts new adventure.
- Uses abilities, Fights enemies, saves game, exits game, etc.

GAME OUTPUT

- Shows Terms of Service the first time the player starts the game
- Allows player to start adventure after accepting ToS.
- Displays Main Menu so the player can choose different options.
- Stores player's input and analytics and sends it to the Developing Team.

Developers' interaction with the game:

DEV INPUT

- Receive player analytics (Time Played, Player Actions, Retention, Time of level completion, statistics...)
- Receive bug reports and feedback from players, adjust and update the game.
- Create special events, new levels...
- Check and moderate the community

GAME OUTPUT

- Display player analytics and data.
- Use data programmed by the developer to fix or update the game.
- Display new levels or special events to the player.
- Cheaters might receive a special message showing that some actions might get them banned.

Game Use - Case diagrams

Display System: In this diagram it can be seen how the Player interacts with the Main Menu. From there it can access different choices like to start the game, change different settings, view the credits or exit the game.

Display System
Play : Starts Adventure
Options : Shows different settings
Credits : Views Credits
Quit : Exits Game

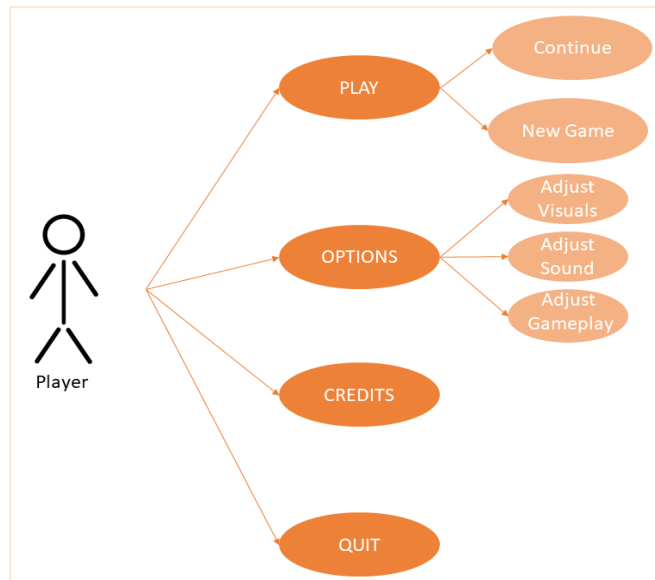


Diagram 3

Character Options: In this diagram is shown the different options the player has when controlling the character. From accessing the Pause menu, to attack, etc...

Character Options
Movement : Controls Character
Pause : Shows Pause Menu
Inventory: Opens Inventory with items
Viking Rage: Enhances Abilities
Attack
Mount Riding: Uses special vehicle/Animal

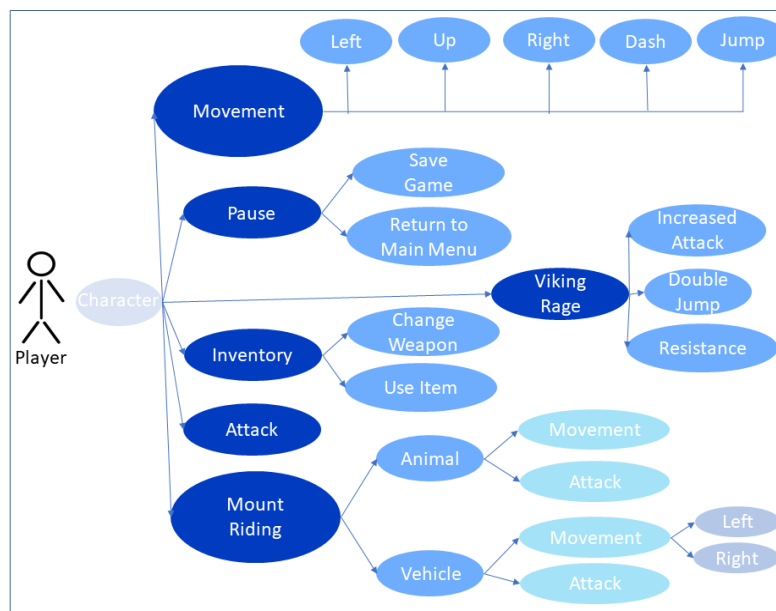


Diagram 4

Depending on the player input, the character will act differently. Input from the keyboard (A,W,D,E,SPACEBAR) would control the character's movement. (P) would open the pause menu, where the player can save the game or return to the main menu.

Special abilities such as the Viking Rage (R) would be only available when certain characteristics are met. (O) opens the inventory where the player can use health items or change the weapon. Input from the mouse (Right Click) would make the character attack and use specific mounts when available.

Game Object Interaction: In this diagram is shown how the character reacts with different objects and events in the game.

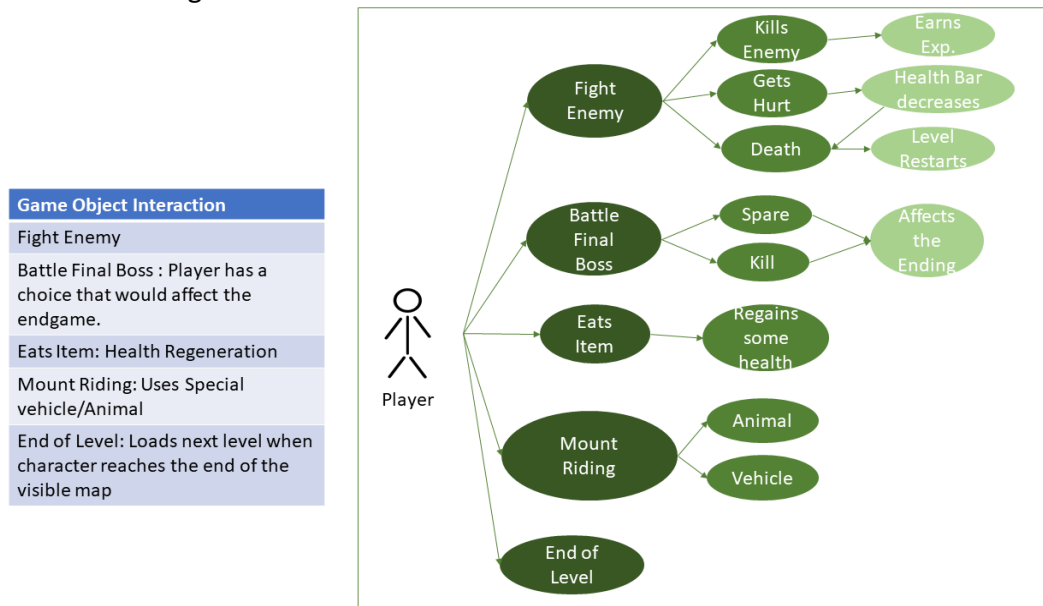


Diagram 5

Diagram 5 shows how the character reacts to different objects (enemies, health items...) When fighting an enemy, the character can kill it and receive experience, but it can also get damage and that would make the health bar lower, with the possibility of finishing all the life points and ending the level, making the character lose all the experience/items gained in that level and restarting the level.

Battling final bosses have the same responses as battling normal enemies, but when the character defeats the final boss the player has an option to kill or spare, and that would affect the ending of the game depending on what the player chose.

Eating items would regenerate some health points and then would disappear so the player can only use it once.

When available, the player would encounter mounts and different animations and attacks would take place.

When the character reaches a specific point in the level/map that would trigger the game to show the next level.

Combined View

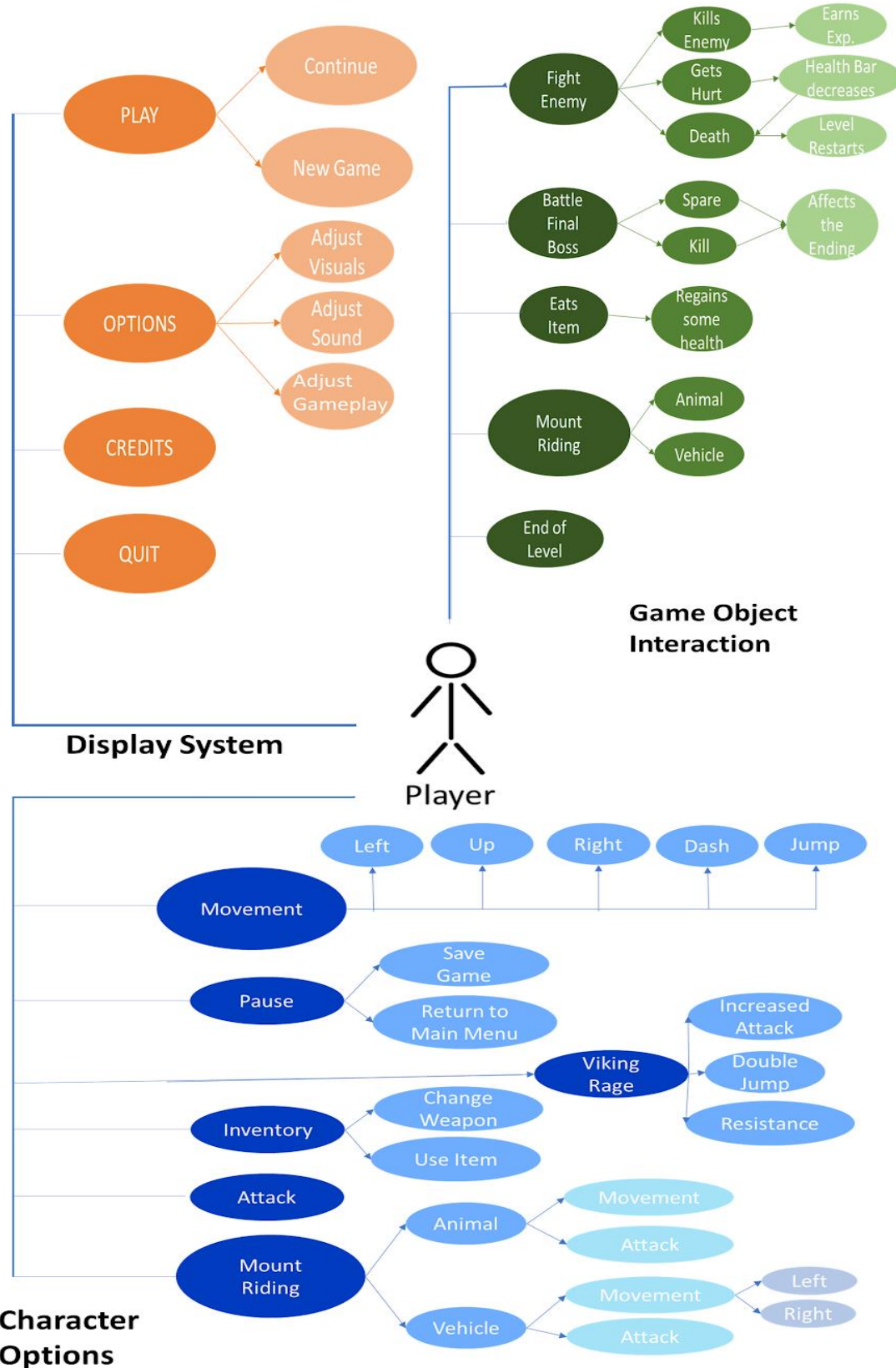


Diagram 6

Business Analysis (1500 words max)

Risk Assessment

<u>Risk</u>	<u>Resource</u>	<u>Level of Risk</u> <u>0(Low)-</u> <u>5(High)</u>	<u>Impact</u>	<u>Solution</u>
Budget runs out	Stakeholders	1	Project can't continue	Make sure we plan budget in advance so that it doesn't happen
Run out of time to complete the project fully	Whole team	4-5	Project may release unfinished or rushed	Create detailed GANTT charts to ensure that this doesn't happen and make sure we are always on track.
Gameplay flaws -e.g. lagging, glitches, freezing	Programming Testers	2-3	Game may be unplayable or completely exploitable, meaning that people cannot play the game as it was intended	The project may need optimisation and graphics shaders to make sure it runs correctly. The testers should also try their hardest to break the game so that as many glitches can be fixed as possible
Story is not captivating or people don't enjoy it	Testers Whole Team	3-4	Players will lose interest in playing the game if they feel that the story is going nowhere.	Have other people from outside the company look over the story and get their opinions on how the story is and what could be improved or expanded upon
Game is not challenging or	Testers Programmer	4-5	Players will get bored if the game is too easy or	Continually test the game to make sure the difficulty level is consistent with the

is too challenging	Community Manager		frustrated if it's too hard and may stop playing	game's age rating, also using a beta to see players' reaction to the difficulty.
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(Risk assessment)

This assessment clearly shows what could affect our team going forward through the project and what we need to be aware of. As we can see from the table our team will need to communicate constantly to make sure that everything is proceeding as planned and that we remain well within our budget so that the process of making the game can continue. The table also shows that our testers need to be testing all the way throughout the process to make sure that there are no bugs or glitches and to test the story, for the story element we may need to hire external testers as the testers in our group will help creating the story and having an outside view would help to make sure that our story is cohesive and consistent.

Stakeholders

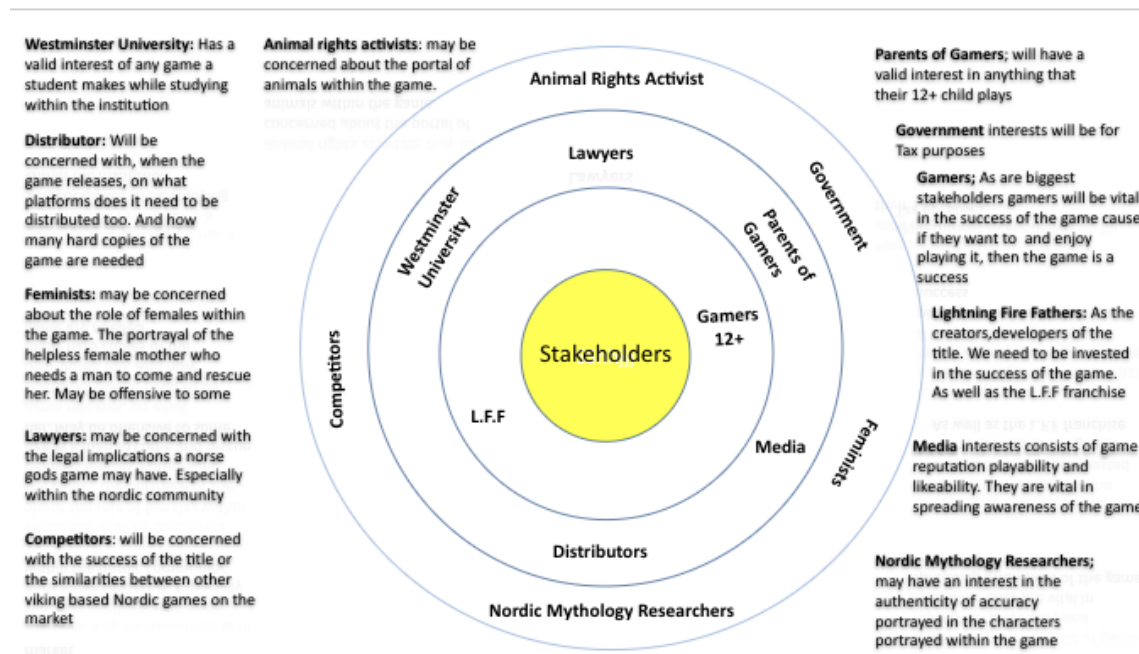
Below is an Onion Diagram depicting the stakeholders which may have a direct or indirect impact on the success of the game "Viking Deception".

The "Lightning Fire Fathers" (L.F.F) flagship game "Viking Deception" has highlighted the viewpoint of all Stakeholders, that could possibly impact the game.

This included negative stakeholders such as competitors, as they push us on, to strive for success within this industry.

Our game will bring a simple yet exciting 2D side-scroller hack and slash, platformer game, with an interesting storyline full of plot twists and unexpected outcomes.

We will be targeting mainly teenagers as we think they'll be most interested in our theme and it'll be appropriate for them to play.



(Figure 7)

The key stakeholders are listed within the onion diagram. All of the stakeholders listed are important to the viability and success of the game. The stakeholders are people who will be using or will be affected by the game itself. The diagram represents from most relevant to the success of the game, to the least impactful. This diagram is to included; focus and activist groups, as well as competitors as stakeholders.

Budget Analysis

Overview of Budget				
Name/ Month	Month 1	Month 2	Month 3	Month 4
Staff Costs				
Art Staff		£3,000.00	£1,500.00	£0.00
Design Staff	£1,750.00	£1,750.00		
Programming Staff		£4,333.33	£4,333.33	£2,750.00
Audio Staff		£2,126.17	£2,126.17	£2,126.17
Marketing Staff				
Non-Staff Cost				
Hardware	£155.94			
Voice Acting		£1,030.00		
Marketing			£425.00	£425.00
IP Licensing				
External Vendors				
Food				
Shipping				
Office Supplies				
Travel				
Total	£3,650.89	£12,239.50	£8,384.50	£5,301.17
Total Budget	£30,000.00	£26,349.11	£14,109.61	£5,725.11
Budget left	£26,349.11	£14,109.61	£5,725.11	£423.94

Staff Costs				
Name/ Month	Month 1	Month 2	Month 3	Month 4
Art Staff				
Game Artist		£1,500	£1,500	
Game Artist		£1,500		
Total		£3,000	£1,500	
Design Staff				
Game Designer	£1,750	£1,750		
Total	£1,750	£1,750		

Programming Staff				
Lead Programmer		£2,750	£2,750	£2,750
Programmer		1,583.33	£1,583.33	
Total		£4,333.33	£4,333.33	£2,750
Audio Staff				
Sound Engineer		£2,126.17	£2,126.17	
Total		£2,126.17	£2,126.17	
Marketing Staff				
Market Researcher	£1,416.66			
Total	£1,416.66			

Software costs			
Software name	Number of licences	Cost per licence	Total cost
Aseprite	1	£15.49	£15.49
FL Studios Producer Edition	1	£153.00	£153.00
Audacity	1	£0.00	£0.00
Creative Cloud	2	£79.90	£159.80
MonoGame	6	£0.00	£0.00
Microsoft Office	6	£37.60	£225.60
Total			£553.89

Voice Acting			
Characters	Cost	Number of hours	Total Cost
Male lead 1	£125.00	2	£250.00
Male lead 2	£100.00	2	£200.00
Female Lead 1	£115.00	2	£230.00
Female Lead 2	£100.00	2	£200.00
Background voices	£75.00	2	£150.00
Total			£1,030

Marketing			
Strategy	Cost	How many needed	Total Cost
Website	£10.00	15	£150.00
YouTube ads	£30.00	20	£600.00
Social Media Ads	£10.00	10	£100
Total Cost			£750

Hardware			
Hardware Name	Price	Amount Needed	Total Cost
500GB Hard drive	£25.99	6	£155.94
Total			£155.94

Business analysis

During our time making this game we will have to take steps to ensure that we satisfy all of our stakeholders and to do this I will analyse what we need to do as a business. First off we need to make absolutely sure that our game appeals to the most important stakeholders of all, the team creating it and the people playing it, we the team need to make sure we are invested in creating the game and are invested in getting our business out there to secure our place amongst other developers. To do this we need to make sure that 'Valhalla's Deception' is appealing to the other most important stakeholders, the gamers, if they are not interested in our product then it will fail. To ensure this doesn't happen we will have to advertise our game fully and in loads of areas including social media, YouTube. For the next stakeholders such as Westminster University and the distributors we will need to be careful about sticking to our age rating. Since our game does involve weapons, we need to be cautious about what we show as the University will not want a game that is heavy on blood. This also applies to the media and the parents as well because they won't want a child of at least 12 playing an overly violent game, plus the media always tries to paint violent games in a negative light. Finally, our competitors will be watching our game closely to see how it does as they may want to create a Nordic based game as well. Lastly animal rights activists and feminists will be invested as well, so for them we need to make sure that the game does not feature animal abuse and that the female characters are actually well written and not stereotyped.

Legal Information/ IP

- During the creation of the game "L.F.F" must be careful not to use any assets that are trademarked and copyrighted, and we must obtain permission to do so.
- "L.F.F" will also take out our own copyright on this game, and trademark it as the publisher. This entitles us to be taken seriously as a new company, coming up the ranks of video-game development, providing us security within the marketplace
- "L.F.F" will trademark our ideas, making sure other companies cannot use a similar trademark to ours. Disclaimer: however trademarking does not stop other companies from making a similar product under a different trademark.
- The Gamer Workers Unite became a brand of the Independent Workers Union of Great Britain.
- L.F.F will have to be aware of international laws of taxation. In the USA, in 2018, a Rhode Island politician proposed a violent video game tax in order to pay for mental health and counselling resources. Per an overview by GamesIndustry.biz, -odinlaw.com. So LFF will be cautious of international law from online players

Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis:

SWOT analysis is a planning technique used to help a team identify the strengths, weaknesses, opportunities and threats related to the game project. This affects the company because it can determine how well the game sells and if it is a success.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Good storyline • Dedicated team • Voice acting 	<ul style="list-style-type: none"> • Lack of reputation • Lack of time to create the game • Too many mechanics for time frame • Small team • Lack of experience
Opportunities	Threats
<ul style="list-style-type: none"> • For our game to be recognised/ become known • Released on the mobile market • Available in every country 	<ul style="list-style-type: none"> • Competition from other companies • Piracy • Incompletion of the game - having to remove mechanics • The game could not be able to run • Possibility of Too many bugs to fix • Other companies using our artwork/ ideas

Voice acting is a strength for our team as we were complimented on our YouTube video - describing the concept and ideas behind our game. This implies rather than outsourcing all of our voice acting we can save money by using some of our team members for voice acting whilst the game remains intriguing to the audience. However, we will still spend money on voice acting so that our game remains diverse and isn't monotoned. Furthermore with the game not being able to run this could either be being able to run on different devices or the game not being playable which would mean we won't be able to achieve the opportunity of releasing the game in every country.

GDPR analysis

Before accessing the game, players will have to agree to our terms and conditions which will be built around keeping our data secure. We wouldn't have to deal with the users' data, as we don't need any of their data or information. For instance, some games may have you create a login, whilst ours does not. Although we may use other data, like user age, and user location. We'll make sure to ask for their permissions before taking such data whilst explaining how it will be used, keeping in conduct with the GDPR.

We will make sure to put user safety first when handling their data. For instance, making sure that it doesn't get leaked. We will allow users to withdraw from purchasing the game if they do not agree to the conditions. We will review the laws of all the countries that we plan to launch the game on so that we don't break any of their laws, as they may be more strict than ours.

Testing & Release

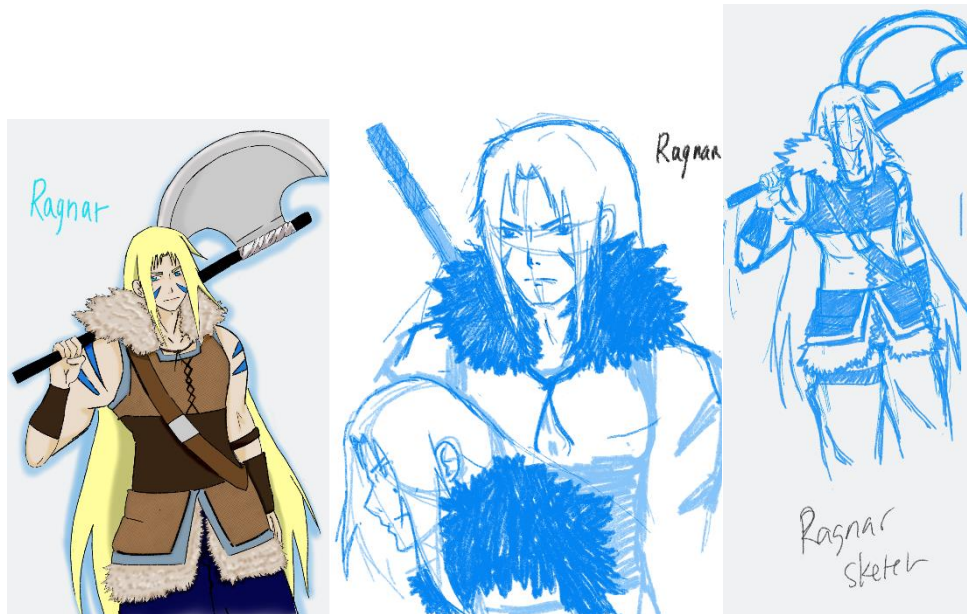
Testing approaches and plans. When it comes to testing we'll be using two different types of testing methods. Firstly, we'll be actively testing our game as we go along so that it reduces bugs and problems later in the game. We'll also have a whole segment in our development plan dedicated to testing so that we can weed out every single problem and bug. Our tester Vanesa will purposely try to break the game whilst playing it in order to identify issues with the game. She'll then report the bug or problem to the rest of the team, so that they can then repair it afterwards.

We'll also be doing Whitebox and Blackbox testing. This is where one user tests the product with knowledge about the code, so for example they would be able to talk about certain mechanics not working. Then another user who has no experience and knowledge will play through the game and give feedback purely based on their own experience.

Game Release stages

We'll be releasing the game in different stages after we have completed our production and testing we will have a pre-launch to the game which will have the game in beta where we can receive feedback from users for any bugs not found by our testers (black box/Whitebox) and then we will launch the game officially. Finally, we will work on the post product for the game ensuring that it's kept up to date and developed accordingly.

Concept Art



(Diagram 7,8,9)

Ragnar:

Ragnar is the lead character within the story. He will be the character the users play as in "Valhalla's Deception".

Ragnar is the former king of the Gods who lived in Valhalla with his family and the fellow God's, the initial storyline revolves around him.

Although Ragnar was 'God of God's' his dress sense has never been that of a King but more of a Nordic huntsman, which represented his connection to humanity at the time.

Ragnar is known to be a fierce warrior within Valhalla, but he has not seen combat in a millennia.

Ragnar was betrayed by his fellow God's and usurped of his throne and his home by the jealous Gods "Odin" and his minion "Loki".

Ragnar is in search of revenge and redemption and wants his home, throne and family back. Will he get that redemption? It is up to the players to decide...

Loki



(Diagram 10,11)

Loki:

Loki, known as the God of mischievous and deceit. The jester and trickster of the Gods.

Loki is said to be of half frost giant blood, depicted by his horns and blue complexion.

Loki is the trickster of the Gods and known to have a vile and uncompromising passion for evil, His tricks on the Gods are known throughout the realms.

Loki teamed up with "Odin" to dismantle the legacy of "Ragnar's" leadership, as King over the God's. capturing his family and poisoning him while he ate.

Loki may look like a harmless pretty boy, with his elegant silk robes, but he is definitely not one to be messed with.

Loki has always had ambition greater than his stature, so when asked to lead a coup against "Ragnar" by "Odin", he jumped at the chance...



(Diagram 12)

Odin:

Odin is known as the God of war. One of the fiercest Gods to ever wield an axe.

Odin is a warrior God who had ambitions, greater than his station.

Odin believes the strongest and most revered God should lead the Gods of Valhalla and believes "Ragnar" who hasn't seen combat in a millennia is no longer that God.

Odin married the goddess Freya in order to increase his standing within Valhalla.

Odin has always been envious of "Ragnar's" position as King of the God's but although envious?! Would never have the courage to challenge "Ragnar" one on one because of "Ragnar's" vast abilities in the art of combat.

Odin joined forces with the trickster God "Loki", another God jealous of Ragnar's position, in order to help him overthrow Ragnar.

Although Odin is a fierce warrior, the way he overthrew Ragnar was that of a coward, poison is not used by Nordic warriors in Valhalla.

Odin's dress style is that of a warrior Viking.

Conclusion:

During gameplay "Odin" is the new King of the Gods, can you help "Ragnar" Dethrone him and reclaim His family, His Kingdom and His Glory?..... Multiple game ending scenarios are available depending on the players choices during gameplay of the game. Valhalla's Deception is not just your average 2D hack and slash, but it is an experience that the players will never forget.

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