# Sprint information and user stories

Document summary:

* Initial user stories
* Initial iteration plan
* User story change log

For sprint information see Trello.

# Initial user stories

Must have

Should have

Could have

Would have

Template:

### User story name

Story points:

Comments:

Acceptance tests:

MUS1 – As a player/system tester, I would like to be in a basic playable world

Story points: 0

Comments:

* Just a basic world where the user can move

Acceptance tests:

* Create a basic world where the user can move their character
* The world will not let the user "fall off the edge"

MUS2 – As a player, I would like to be able to move my character

Story points: 0

Comments:

* - Use of WASD
* - Player should be able to move character with W + camera moving

Acceptance tests:

* The player is able to move with WASD
* The player is able to move with any movement input and camera angling in yaw
* Player cannot move through objects

MUS3 – As a player, I would like to be able to turn my field of view

Story points: 0

Comments:

* The player can turn their field of view using mouse motion in the default stance

Acceptance tests:

* The user can change their camera direction using mouse motion when in the default stance

MUS4 – As a player, I would like to have different stances in which i can choose my actions from

Story points: 3

Comments:

* - Animations between stances will need to be interpolated
* - Attack and block stances are can be softlocked onto target
* - Be able to swap stance via a key press
* Stances
  + - Slash
  + - Slash camera angling
  + - Stab
  + - Block
  + - Default (turn view normally)

Acceptance tests:

* The user can switch stances when the corresponding key input is pressed
* Transition between stances is responsive and seamless

MUS5 – As a player, I would like to be able to hold a sword

Story points: 0.5

Comments:

Acceptance tests:

* The user avatar is able to hold a sword with one hand
* The user avatar is able to hold a sword with two hands

MUS6 – As a player, I would like to be able to attack with a sword with a slash

Story points: 4

Comments:

* - Slash stance
* - Holding RMB to switch into Slash stance then do the mouse motion. If player moves mouse south east relative to the player, the sword should slash to the bottom left
* - Releasing RMB results in the the user going back into the default stance (can move camera angle)
* - Sword only slashes when acceleration of mouse movement is high enough. If moving mouse slowly, player can adjust where their sword is.
* - Damage of attack based on player mouse speed
* - Players must be limitted in mouse speed to not be able to swing at too high speed.
* - OR When the slash is initiated, the animation of the slash will play and the player cannot stop the animation with their mouse until at the end or near the end of the slash, however, going into block stance should cancel the slash.
* - The player can however change the direction of the slash, mid slash.

Acceptance tests:

* The user is able to enter the slash stance by pressing RMB
* The users' sword follows the mouse motion input
* When the user moves the mouse fast enough, the acceleration triggers the sword to slash
* The sword stays in its current position even after leaving the Slash stance
* The user can stop the sword slash motion by entering block stance
* The user can change direction of the sword slash by mouse motion
* Sword movement must be bounded by arm reach
* The user can see animations for the sword and sword arm

MUS7 – As a player, I would like to be able to attack with a sword with a stab motion

Story points: 4

Comments:

* - Hold an input to switch to stab stance
* - The sword should switch to a stabbing postion (e.g. parrallel to players view direction).
* - When thrust, the position of the sword when the stance is switched remains the same but the user can camera angle to aim where to stab.
* - User thrusts mouse north to start stabbing motion, stab is only initiated if the normalised mouse velocity is high enough (this is up for change, might not work well)

Acceptance tests:

* The user is able to enter the Stab stance by pressing a key input
* The users' sword follows the mouse motion input and is parrallel to players view direction.
* When the user moves the mouse fast in the North direction relative to the player, the stab is initiated
* The sword stays in its current position even after leaving the Stab stance
* The user can camera angle where to aim the stab when stab is in motion by mouse moving
* Sword movement must be bounded by arm reach
* The user can see animations for the sword and sword arm

MUS8 – As a player, I would like to be able to block an attack with a sword

Story points: 4

Comments:

* - Done by holding RMB to change into the Block stance
* - User moves the mouse in the direction they wish to block
* - A block is successful if the attack is coming from that direction
* - Block power can be determined somehow. Perhaps user holds an additional button to strengthen the block but this locks the users sword inplace.
* - A more sophisticated check may be neccessary to account for player and opponent positions/camera positions.

Acceptance tests:

* The user is able to enter the block stance by holding RMB
* The users' sword follows the mouse motion input
* The sword stays in its current position even after leaving the block stance
* The user is protected at that sword location and attacks cannot hit/damage the user
* Sword movement must be bounded by arm reach
* The user can see animations for the sword and sword arm

MUS9 – As a player, I would like to be able to hit a target with a Slash or Stab

Story points: 2

Comments:

* The player should be able to hit the target when the sword collides with the opponents collision box as a result of a slash or stab

Acceptance tests:

* The opponent is succesfully hit/damaged when slashing
* The opponent is succesfully hit/damaged when stabbing

MUS10 – As a player, I would like to be able to dodge

Story points: 1

Comments:

* - Players can dodge in any stance by pressing WW, AA, SS, DD
* - Players can dodge by pressing WASD and dodge button

Acceptance tests:

* The user can dodge when pressing WW,AA,SS,DD
* The user can dodge by pressing WASD and dodge button

SUS1 – As a player and system tester, I would like to be able to hit a target to practise on

Story points: 1

Comments:

* - This could just be a model from UE4 MP which has a collision box
* - Animations occur when target is struck

Acceptance tests:

* Target is able to be hit and responds appropriately
* Target has a block area to test blocks

SUS2 – As a player, I would like feedback if I successfully hit a target or get blocked

Story points: 2

Comments:

* - Feedback could be either a sound or visual effect

Acceptance tests:

* The user hears a sound when their sword successfully strikes the target
* The user hears a sound when their sword is blocked by the opponent
* The user has some visual feedback (not decided) when successful strike or blocked

SUS3 – As a player, I would like to be able to move my character while attacking or defending

Story points: 2

Comments:

* This will be with WASD while attacking or blocking
* Will be required to be accounted for in the physics system

Acceptance tests:

* Animations for each stance are correct for each
* Player movement is accounted for in the physics system
* Player can move in the stance

SUS4 – As a player, when in Stab, Block or Slash stance I would like to be soft locked on the target

Story points: 2

Comments:

* - This is to help the combat feel more controllable and easier to control
* - Soft lock as it wont be jarring if opponent moves quickly out of FoV

Acceptance tests:

* When in Stab, Slash or Block stance, the camera is hard locked onto the target
* When in "" "" , the camera is soft locked onto the target

SUS5 – As a player, I would like to damage my opponent

Story points: 0.5

Comments:

* Damage calculation of the sword based on sword speed and weight

Acceptance tests:

* Damage is applied when sword hits target successfully

SUS6 – As a player, I would like to be able to jump

Story points: 1

Comments:

* Can disable when mid swing but allow for jumping at start and end of animations to feel fluid

Acceptance tests:

* User is able to jump when key input
* User is not able to jump when in Slash or stab motion
* User is able to slash or stab when in the air

SUS7 – As a player, I would like to be able to do a slash attack with body rotation motion

Story points: 3

Comments:

* - Slash body motion stance
* - Player holds Stab and Slash stance input, this puts avatar in slash body motion stance. The sword should be in a position (from the stab stance) that when the avatar rotates it should be able to hit the opponent
* - Edge of sword should always be parallel to the avatar/user motion and should be able to strike in a 360
* - Good for hitting multiple opponents

Acceptance tests:

* The user can switch into the Slash body motion stance using Stab then Slash stance inputs (held)
* The user can spin and attack with the sword using mouse motion. (changes FoV and sword)
* The user can only spin at a fixed speed
* The user cannot move with WASD in this stance
* The user is able to spin a full 360 degrees

SUS8 – As the player, I would like to be able to pick up a sword

Story points: 1

Comments:

Acceptance tests:

CUS1 – As a player/system tester, I would like to be able to change game options

Story points: 2

Comments:

* Such as mouse sensitivity etc
* Slash and Stab activation accelerations

Acceptance tests:

* User should be able to open a menu to change settings

CUS2 – As a player, I would like to be able to have stats such as HP, stamina

Story points: 1

Comments:

* For the purposes of taking damage, etc.
* - Block gauge could be a green priority

Acceptance tests:

* Player avatar has stats which are accessible by class functions
* Player stats are private

CUS2 – As a player, I would like to be able to have stats such as HP, stamina

Story points: 1

Comments:

* For the purposes of taking damage, etc.
* - Block gauge could be a green priority

Acceptance tests:

* Player avatar has stats which are accessible by class functions
* Player stats are private

CUS3 – As a player, I would like to be able to take damage and display a hit effect when damage is taken

CUS4 – As a player, I would like to see my current stats (HP)

CUS5 – As a player, I would like to use different types of swords

CUS6 – As a player, I would like there to be unblock-able attacks

CUS7 – As a player, I would like there to be powerful attacks which stagger opponents or myself if blocked

CUS8 – As a player, I would like the possibility to recover from being staggered quickly

WUS1 – As a player, I would like to be able to defend vs an enemy/play against an AI

WUS2 – As a system tester, I would like an interesting map to play in and use to showcase the system when complete

# Sprint info

## Main personas:

* Player
* System tester

## Ideal day:

* 8 hour/day coding

## Number of story points:

* Must Have: 18.5
* Should Have: 11.5
  + Must, Should have total: 30
* Could Have: 10
  + Must, Should, Could have total: 40
* Would Have: 9.5
  + Must, Should, Could, Would have total: 49.5

## Project total number of days:

* (8 sprints x 5 days) = 40 days

## Sprint velocity:

* 5 ideal days/SP (1 developer, 5 days per week)

# Initial print plan

### Sprint 1 (11.10 - 18.10)

* MUS1, MUS2, MUS3, MUS4, MUS5

### Sprint 2 (18.10 - 25.10)

* MUS6, SUS1

### Sprint 3 (25.10 - 01.11)

* MUS7, MUS9

### Sprint 4 (01.11 - 08.11)

* MUS8, SUS2

### Sprint 5 (08.11 - 15.11)

* SUS3, SUS4, SUS5

### Sprint 6 (15.11 - 22.11)

* SUS6, MUS10, SUS7

### Sprint 7 (22.11 - 29.11)

* CUS1, CUS2, CUS3, CUS4, CUS5

### Sprint 8 (29.11 - 6.12)

* CUS6, CUS7, CUS8

## Notes:

* SUS8 not included as not deemed necessary
* Only M,S,C stories considered as within project total number of days
* Stories account for challenges such as:
  + Targeting during stances (when mouse used to move sword)

# User story change log

## Change 1

### Change: Extract common functionality

* Added new user story, MUS9 - As a player, I would like to be able to move my sword in the direction of my mouse movement in a Sword Stance.
  + Story is allocated 3 points
  + Story is part of 3 other stories (678)
* Changed MUS6,7,8 to 3 SP cost from 4.
* Total Must Have story points remain the same.
* Change made as MUS9 user story is similar functionality in all MUS6 7 8.
* Reorganised future sprints to maintain sprint velocity.
* New iteration sprint plan due to change of user story.

### New iteration plan:

### Sprint 1 (11.10 - 18.10)

* MUS1, MUS2, MUS3, MUS4, MUS5

### Sprint 2 (18.10 - 25.10)

* MUS9, MUS10, SUS1

### Sprint 3 (25.10 - 01.11)

* MUS6, MUS7

### Sprint 4 (01.11 - 08.11)

* MUS8, MUS9, SUS5

### Sprint 5 (08.11 - 15.11)

* SUS2, SUS3, SUS6

### Sprint 6 (15.11 - 22.11)

* SUS4, SUS7

### Sprint 7 (22.11 - 29.11)

* CUS1, CUS2, CUS3, CUS4, CUS5

### Sprint 8 (29.11 - 6.12)

* CUS6, CUS7, CUS8

## Change 2 (25.10)

### Change: Account for animations

* + SUS5 – Changed from 0.5 SP -> 0
    - Leaned it does not take much at all
  + SUS6 - As a player, I would like to be able to jump
    - Changed from 1 – 0.5 as same reason as above
  + SUS3 - As a player, I would like to be able to move my character while attacking or defending
    - Changed from 2 – 1 as some functionality implemented already when developing the stances (can move while attacking)
  + SUS2 -As a player, I would like feedback if I successfully hit a target or get blocked
    - Changed from 2 – 1 as it should not take as much time
  + **Changes due to animations now being considered of primary importance**
    - Changed MUS11 to have an animation story
      * MUS11A - As a player, I would like the to be animations when repositioning the sword with my mouse position for each sword stance
        + +2 SP
    - Changed MUS6/7 to have an animation user story
      * MUS6&7A - As a player, I would like there to be a slash and stab animation
        + +2 SP

### New iteration plan:

### Sprint 1 (11.10 - 18.10)

* MUS1, MUS2, MUS3, MUS4, MUS5

### Sprint 2 (18.10 - 25.10)

* MUS9, MUS10, SUS1

### Sprint 3 (25.10 - 01.11)

* MUS11A, MUS8, SUS6

### Sprint 4 (01.11 - 08.11)

* MUS7, MUS6

### Sprint 5 (08.11 - 15.11)

* MUS6&7A, MUS9, SUS3, SUS5

### Sprint 6 (15.11 - 22.11)

* SUS2, SUS4, SUS7

### Sprint 7 (22.11 - 29.11)

* CUS1, CUS2, CUS3, CUS4, CUS5

### Sprint 8 (29.11 - 6.12)

* CUS6, CUS7, CUS8

## Change 3 (26.10)

### Change: Spike/prototype user story to learn best way to approach project for animations

* Added a spike/protype user story of 3 SP
  + This is to learn how to use animations in UE4 and the best practises/the most appropriate approach for this project.
  + I did not want to rush into it as how you handle animations also relates to how the system as a whole should work (root motion or not for example) and I believe its best to find the best way with planning and learning first.
* Added Storys for walking, dodging and running animation
* Removed 5SP of Could Have stories and put back in project backlog to be considered in the future. (CUS6,7,8)

### New iteration plan:

### Sprint 1 (11.10 - 18.10)

* MUS1, MUS2, MUS3, MUS4, MUS5

### Sprint 2 (18.10 - 25.10)

* MUS9, MUS10, SUS1

### Sprint 3 (25.10 - 01.11)

* Prototype, SUS6

### Sprint 4 (01.11 - 08.11)

* MUS11A, MUS8,

### Sprint 5 (08.11 - 15.11)

* MUS7, MUS6

### Sprint 6 (15.11 - 22.11)

* MUS6&7A, MUS9, SUS3, SUS5

### Sprint 7 (22.11 - 29.11)

* SUS2, SUS4, SUS7

### Sprint 8 (29.11 - 6.12)

* CUS1, CUS2, CUS3, CUS4, CUS5