

Scrum Planning & Execution

HeadsUp7Up – VR Escape Room

Virginia Tech – MIT Program

Final Assignment: Group 1

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Overview

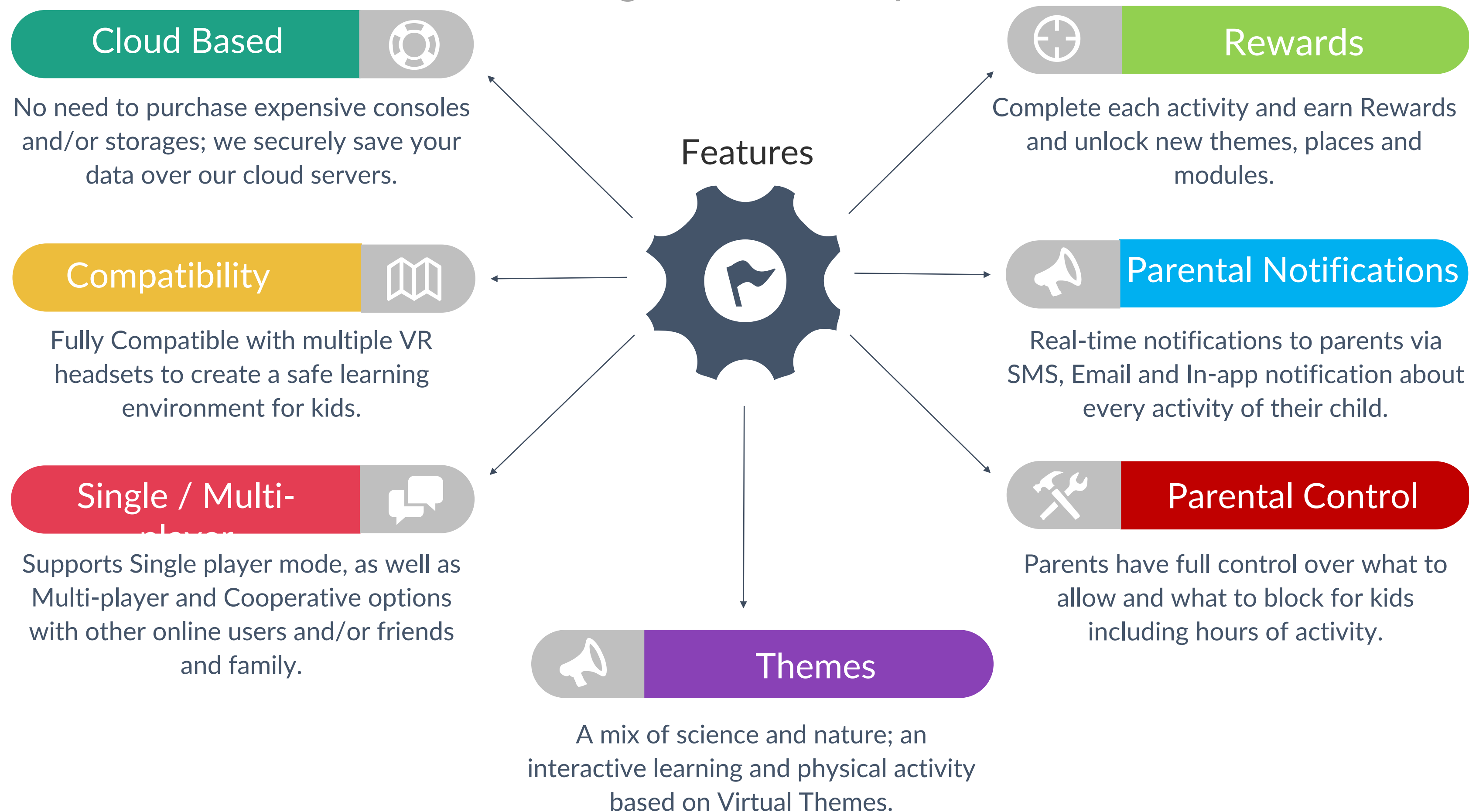


- Introduction
- Roadmap
- MVP/RTM
- Estimation Basis
- Timeline
- Sprints
- Scrum / Kanban Board
- Standup Notes
- Retrospective Notes

Product Introduction

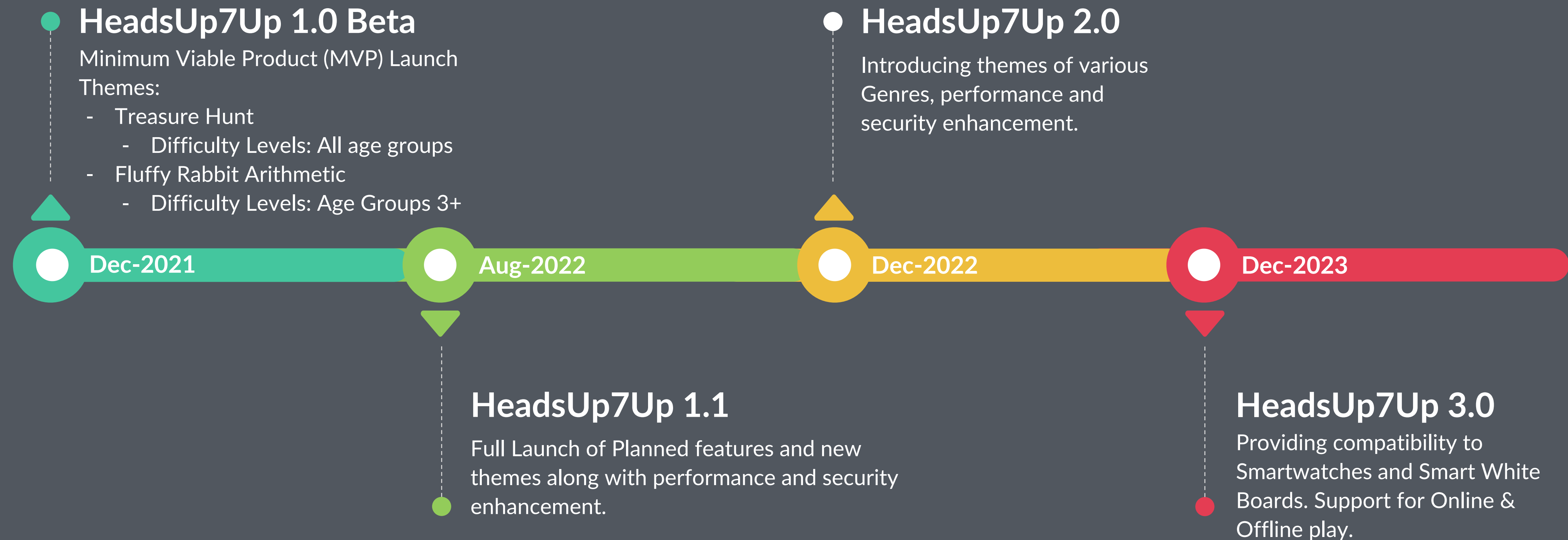
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HeadsUp7Up is a Virtual Reality Escape Room for kids which provides interactive learning experience. We specialize on development of VR themes software using machine learning and augmented reality.



Roadmap

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For detailed Information, visit:
<https://shae1223.wixsite.com/headsup7up/>

MVP / Requirement Traceability Matrix



Project: HeadsUp7Up VR Escape Room			
Traceability #	Business Requirement ID	Technical Requirement ID	Test Case ID
V101	B101	TR101	T101,T102
V102	B102	TR102	T102
V103	B103	TR103	T103
V104	B104	TR104	T104
V105	B105	TR105	T105
V106	B106	TR106	T106
V107	B107	TR107	T107
V108	B108	TR108	T108
V109	B109	TR109	T109
V110	B110	TR110	T110
V111	B111	TR111	T111
V112	B112	TR112	T112
V113	B113	TR113	T113
V114	B114	TR114	T114
V115	B115	TR115	T115
V116	B116	TR116	T116
V117	B117	TR117	T117

MVP / Requirement Traceability Matrix

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Business Requirement			
BR #	Module Name	Applicable Role	Description
B101	Login and Logout	User Parent	User: A user can login using the login page. Parent: A parent can login using the login page of User. Post Login home page will show different links based on role.
B102	Home Page	User	User : A user can see home page with 5 buttons. The buttons are Home, Rooms, Careers, About, Contact.
B103	Rooms	User	User : User sees all drop down options to explore.
B104	Number of Players	User	User: User sees three options for number of players: Single Player, Multi-Player and Cooperative option.
B105	Careers	User	User : User sees We are Hiring page. The user should be able to see job options upon scrolling down.
B106	About Us	User	User : User can read information about the company, the team, advisors for the site and prospective company partners.
B107	Support	User	User : User should see a Get in Touch form. User should be able to fill in the required information. Upon completion, the user should be able to submit the form.
B108	Blog Page	User	User: User should see page with four different blogs posted by page owner,

MVP / Requirement Traceability Matrix

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Business Requirement			
BR #	Module Name	Applicable Role	Description
B109	Business Plan	User	User: User will see drop down menu with 4 items: Product, Marketing Plan, Operations and Financials. User clicks on each item, which will open up new page with more detailed info.
B110	Parental Control	User Parent	User: User will see two buttons for Privacy and Limitations Parent: Will see wide range of parental control settings to apply and/or choose to select parental settings by App as per the age group of the child.
B111	Parental Notifications	Parent	Parent will receive in-app, SMS and Email notifications.
B112	Themes	User	User: User will see a list of theme options on each game screen
B113	Rewards	User	User: User earns points for each task completed in every game
B114	Authentication	User Parent	User: Choose to play as single player or Multi-player Parent: Will see dropdown to identify as Parent and Login to Parental home.
B115	In-app Social Interaction	User	User will see option to share the progress details with friends and/or parents
B116	Hardware Agnostic	Administrator	Administrator will see different calibration settings to identify their hardware device, test and set as preferred device.
B117	Purchase	User Parent	User: will see option to request parent approval for purchases. Parent: Receives notifications to approve / reject purchase requests made by the child.

MVP / Requirement Traceability Matrix

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Technical Requirement				
Test Case #	Technical Requirement #	Test Case	Description	Result
T101	TR101	Verify Login and Logout Functionality	Ensure User, Parent, Admin login/logout work as expected.	Successful
T102	TR102	Verify Home Page Functionality	Ensure User, Parent, Admin and guest users have different home pages.	Successful
T103	TR103	Verify Rooms	Ensure VR Rooms work as expected.	Successful
T104	TR104	Verify Single/Multi Players Functionality	Verify authentication and functionality of single and multi users.	Successful
T105	TR105	Verify Careers Functionality	Verify Career page functions as expected.	Successful
T106	TR106	Verify About Us Functionality	Verify the contents of About us Page.	Successful
T107	TR107	Verify Support Functionality	Verify the Support page and legitimacy of its contents.	Successful
T108	TR108	Verify Blog Page Functionality	Verify the Blog page and legitimacy of its contents.	Successful
T109	TR109	Verify Business Plan Functionality	Verify Business plan pages and its contents are up to date and legit.	Successful
T110	TR110	Verify Parental Control Functionality	Verify Parental control functions as expected.	Successful
T111	TR111	Verify Parental Notifications Functionality	Verify notifications via different mediums and ensure it works.	Successful
T112	TR112	Verify Themes (Rooms) Functionality	Verify Themes are properly loaded in the system and its accessible by authenticated users.	Successful
T113	TR113	Verify Rewards Functionality	Verify Rewards functionality works as expected.	Successful
T114	TR114	Verify Authentication Functionality	Validate and verify the authentication module and perform security tests.	Successful
T115	TR115	Verify In-app Social Interaction Functionality	Verify APIs work as expected.	Successful
T116	TR116	Verify Hardware Agnostic Functionality	Test and validate the product with different hardware and ensure it works.	Successful
T117	TR117	Verify Purchase Functionality	Verify and validate the purchase option is available to users and works	Successful

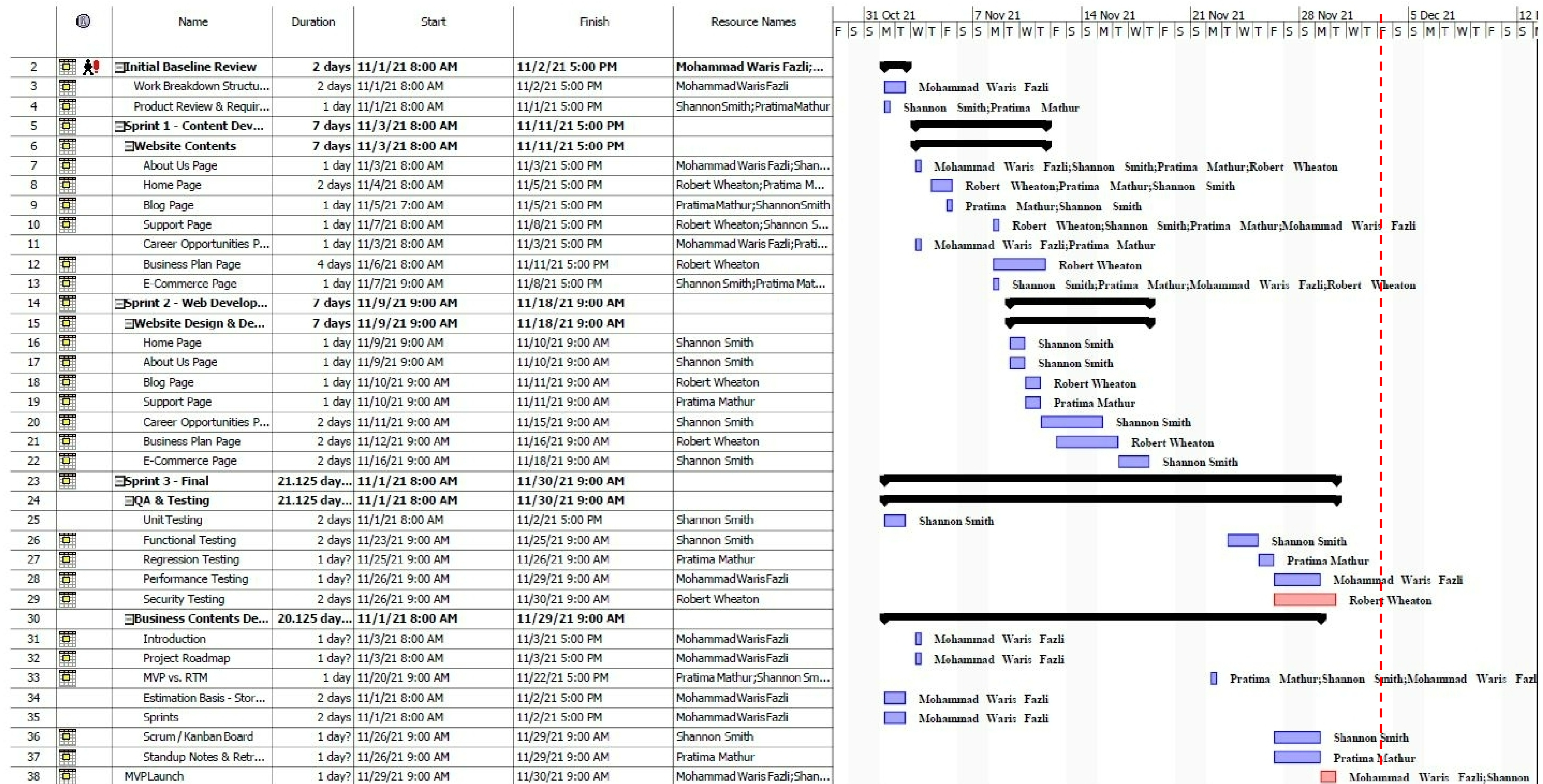
Estimation Basis



Sprint Planning			Planned Start: 10/27/2021 Planned End 11/30/2021	Actual Start: 11/01/2021 Actual End: 11/29/2021
Story Points	Sprint	Module Name	Remarks	
48	Initial Baseline Review	- Work Breakdown Structure - Product Review & Requirement Analysis	Total of 3 Resources are required to work on this sprint at a time, 8 hours a day. Story Points = # of Resources * # of Hours	
224	Sprint 1	- Website content development - Business content development - E-Commerce Core structure development (UI/UX/Database/Server)	Total of 4 Resources are required to work on this sprint at a time, 8 hours a day. 1 Sprint = 7 days. Story Points = # of Resources * # of Hours	
224	Sprint 2	- Website & Product Design & Development	4 Resources x 8 hours x 7 days	
224	Sprint 3	- Quality Assurance & Testing - Slide Deck Presentation Development - Launch Readiness Preparation	4 Resources x 8 hours x 7 days	
8	MVP Launch	- MVP Launch of the Product Version 1.0 Beta Release - On air Site Validation	4 Resources x 2 hours * 1 day	

Timeline

Master Schedule



Sprints - Sprint 1

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	Sprint 1 – Content Development & Infra Setup	●	Planned Start: 11/01/2021 Planned Finish: 11/07/2021	Actual Start: 11/03/2021 Actual Finish: 11/11/2021
	Key Functionalities	Status	Remarks	
01	About Us Page	COMPLETED	The purpose of this Sprint is to write all contents required by the website including support pages and business plan while a parallel effort is put in place to develop the overall skeleton of the website as well as setup the required infrastructure.	
02	Home Page	COMPLETED		
03	Blog Page	COMPLETED		
04	Support Page	COMPLETED		
05	Career Opportunities Page	COMPLETED		
06	Business Plan Page	COMPLETED		
07	E-Commerce Page	COMPLETED		
08	UI / UX Development	COMPLETED		
09	Database Structure Design & Development	COMPLETED		
10	Infrastructure Setup	COMPLETED		
<div>● Completed</div> <div>● Meets the schedule</div>		<div>● Does not meet the schedule but resolvable</div> <div>● Will not meet the schedule</div>		

Sprints - Sprint 2

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	Sprint 2 – Website Design & Development	●	Planned Start: 11/08/2021 Planned Finish: 11/15/2021	Actual Start: 11/09/2021 Actual Finish: 11/18/2021
	Key Functionalities	Status	Remarks	
01	About Us Page	COMPLETED	The purpose of this Sprint is to provide design and develop all required pages by the E-Commerce as well as to design and develop the VR Theme to be ready for MVP Launch. This effort includes unit testing by developers as well.	
02	Home Page	COMPLETED		
03	Blog Page	COMPLETED		
04	Support Page	COMPLETED		
05	Career Opportunities Page	COMPLETED		
06	Business Plan Page	COMPLETED		
07	E-Commerce Page	COMPLETED		
08	VR Theme design & development	COMPLETED		
<div>● Completed</div> <div>● Meets the schedule</div>		<div>● Does not meet the schedule but resolvable</div> <div>● Will not meet the schedule</div>		

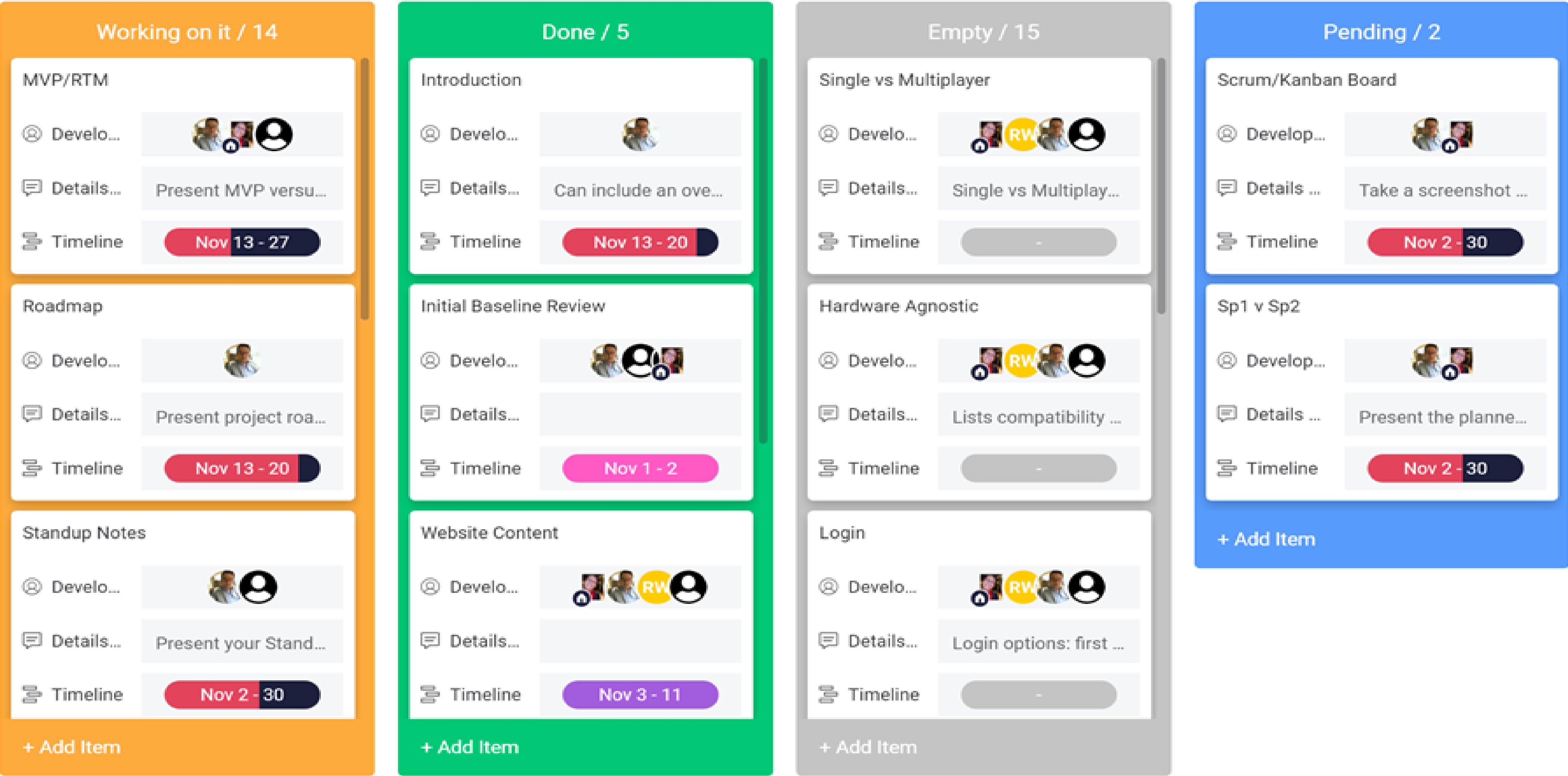
Sprints - Sprint 3

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	Sprint 2 – QA / Testing & Slide Deck Development		Planned Start: 11/19/2021 Planned Finish: 11/30/2021	Actual Start: 11/19/2021 Actual Finish: 11/29/2021
	Key Functionalities	Status	Remarks	
01	Functional Testing	COMPLETED	<p>The purpose of this Sprint is to test every functionality of the website using various testing mechanisms to ensure performance, security and functionality.</p> <p>In parallel, another level of effort is put into place to develop the slide deck presentation for Scrum Planning & Execution.</p>	
02	Regression Testing	COMPLETED		
03	Performance Testing	COMPLETED		
04	Security Testing	COMPLETED		
05	Slide Deck Presentation Development	COMPLETED		
	<ul style="list-style-type: none"> - Introduction - Project Roadmap - MVP vs. RTM - Estimation Basis - Story Points - Sprints - Scrum / Kanban Board - Standup Notes & Retrospective Notes 			
	<div> <div>● Completed</div> <div>● Meets the schedule</div> <div>● Does not meet the schedule but resolvable</div> <div>● Will not meet the schedule</div> </div>			

Scrum / Kanban Board



Standup Notes



11/09/21 Agenda: Sprint 3

- Waris created High Level Plan and broke the plan into Sub-Items.
- Pratima worked on Requirement gathering and Analysis for the assignment and website.
- Shannon created boards on Monday.com for the Assignment and Project.
- Robert brainstormed ideas for the Project. Worked on the Website.

Outcome

- Waris will work on Story points and create Power point for the Assignment.
- Pratima will work on slides for RTM and other slides.
- Shannon will work on Website and Requirement Gathering and Analysis for the powerpoint.
- Robert will work on the Website and work on Epic, Sprints and Story point for the powerpoint.

Issues and Suggested Resolutions

The team lacked content information which led to delays on work of the assignment and project. The group teamed up and supported each other in researching on the required content.

Standup Notes



11/14/21 Agenda: Sprint 4

- Waris worked on slides for PowerPoint and explained all details of the Power point.
- Pratima met Shannon to work on RTM and worked on slides for Power point.
- Shannon worked on organizing Monday.com and worked with Pratima on RTM.
- Robert worked on Epics and Tasks.

Outcome

- Waris will work on Master schedule / Timeline and Scrum / Kanban board.
- Pratima will add more Business requirements based on modules and product. Work on RTM and Functional and technical requirements.
- Shannon will work on slides and on RTM.
- Robert will work on Business plan for the project and continue to work on Epics and Stories for features, modules and Sprints.

Issues and Suggested Resolutions

Lack of experience on the adapted tools led to delays during on-boarding which had an impact on the overall project.

Retrospective Notes



What did we do well?

- Communicated well.
- Assigned tasks well.
- Supported each other.

What should we start doing?

- Meet more often.
- Dedicate central communication channel

What should we keep doing?

- Continue to stay in constant touch.
- Continue Research in relative competitive features.

What should we have done better?

- Thorough research on similar products in the market
- Thorough research about the MVPs of our competitors

What should we stop doing?

- Over planning