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# IS480: FINAL YEAR PROJECT



## TEST PLAN

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## INTRODUCTION

The Test Plan document documents and tracks the necessary information required to effectively define the approach to be used in the testing of SingPath. Its intended audience is Project Supervisor Prof. Benjamin Gan, and members of the GENShYFT team. Some portions of this document may on occasionally be shared with the client and other stakeholder(s) whose input/approval into the testing process is required.

## TEST PLAN TIMELINE

S/N	Assigned	Documents	Deadline
1	Wah Chun	Test Plan	24th Jan 2014
2	Wah Chun	UAT 1 Documents Draft	24th Jan 2014
3	Wah Chun	Finalized UAT 1 Documents	5 <sup>th</sup> Feb 2014
4	Everyone	Find users for User Acceptance Testing 1	7 <sup>th</sup> Feb 2014
User Acceptance Test 1			11 <sup>th</sup> Feb 2014
5	Wah Chun	Update UAT 1 documents in case of changes	12 <sup>th</sup> Feb 2014
6	Wah Chun	Release of UAT 1 Test Report	17 <sup>th</sup> Feb 2014
7	Respective	Finalized changes based on Test Report	19 <sup>th</sup> Feb 2014
9	Wah Chun	Update UAT 2 documents in case of changes	25 <sup>th</sup> Feb 2014
10	Everyone	Find users for User Acceptance Testing 2	28 <sup>th</sup> Feb 2014
User Acceptance Test 2			11 <sup>th</sup> Mar 2014
11	Wah Chun	Release of UAT 2 Test Report	14 <sup>th</sup> Mar 2014
12	Respective	Finalized changes based on Test Report	18 <sup>th</sup> Mar 2014
13	Wah Chun	Update UAT 3 documents in case of changes	18 <sup>th</sup> Mar 2014
User Acceptance Test 3			21 <sup>st</sup> Mar 2014
14	Wah Chun	Release of UAT 3 Test Report	24 <sup>th</sup> Mar 2014
15	Respective	Finalized changes based on Test Report	28 <sup>th</sup> Mar 2014
16	Wah Chun	Update UAT 4 && 5 documents in case of changes	28 <sup>th</sup> Mar 2014
User Acceptance Test 4 && 5			29 <sup>th</sup> Mar 2014
17	Wah Chun	Release of UAT 4 && 5 Test Report	1 <sup>st</sup> Apr 2014
18	Respective	Finalized changes based on Test Report	11 <sup>th</sup> Apr 2014

## TEST SCHEDULE

UAT	Date	Venue	Start Time	End Time	Participants	Pax
1	11th Feb 2014	SIS GSR 2.5	0900hrs	1500hrs	SMU Students	15
2	11th Mar 2014	SIS GSR 2.5	1300hrs	1700hrs	SMU Students	15
3	21st Mar 2014	SIS SR 2.1	TBC	TBC	Secondary Sch Students	20
4	29th Mar 2014	SIS SR 2.1	0900hrs	1200hrs	Junior College Students	40
5	29th Mar 2014	SIS SR 2.1	1300hrs	1700hrs	Polytechnic Students	40

Green indicates UAT has been completed

## USER ACCEPTANCE TESTING

### OBJECTIVES

The aim of the User Acceptance Testing (UAT) is to

- Validate the fulfillment of requirements for functionalities to be tested
- Validate UI heuristics
- Ensure all functions are working as expected

### FEATURES TO BE TESTED

UAT	Features
1	Purpose Driven Coding, Mastery Based Coaching, Events & Ranking
2	UAT 1 Changes, Tournament, Events Management System
3	Tournament
4 && 5	Tournament

## ROLES

Assigned	Role	Responsibilities
Wah Chun	UAT IC (Observer)	Overall in-charge of UAT and ensure that the session runs smoothly
Shanaaz	Facilitator (Observer)	Ensure that end-users are running the application according to instructions
Yusof	Videographer	Video interviews of random participants
Glen	Photographer	Take photographs for UAT
Fariq	Troubleshoot IC (Observer)	Resolve ad hoc application issues that will affect UAT
Eng Sen	Observer	Identify and record issues faced by participants during UAT

\*minimum 3 team members to be present (observer, videographer and photographer)

**UAT 1**

<b>Functionalities to be tested</b>	
1	Events & Ranking
2	Mastery Based Coaching
3	Purpose Driven Coding

Latin Square assignment employed to counter balance familiarity of system for subsequent functionalities

<b>Functionalities testing order</b>		
<b>1</b>	<b>2</b>	<b>3</b>
<b>3</b>	<b>1</b>	<b>2</b>
<b>2</b>	<b>3</b>	<b>1</b>

*Eg. Sample will start testing functionalities in the following order: 1-2-3*

## DETAILED SCHEDULE

The following schedule serves as a guideline for the team to follow in order to ensure a smooth UAT

Time	Description	In-charge
8.45am – 9.00am	Set up logistics for testing environment <ul style="list-style-type: none"> <li>• Web Application</li> <li>• UAT Documents</li> <li>• Video Camera</li> <li>• Camera</li> </ul>	Wah Chun
9.00am – 9.15am	<ul style="list-style-type: none"> <li>• UAT IC will explain the UAT objectives to the participants</li> <li>• Videographer to begin recording of the UAT process</li> </ul>	Wah Chun Yusof
9.15am-10.30am	<b>First Session UAT Start</b> <ul style="list-style-type: none"> <li>• Facilitator to ensure that participants follow the Participant Instructions guide</li> <li>• Facilitator to remind participants to fill in the questionnaires accordingly</li> <li>• Observer(s) to observe participants reaction</li> <li>• Photographer should take as many photos as possible of the entire process</li> </ul>	Shanaaz Shanaaz Eng Sen Glen
10.30am-11.00am	<b>After the First Session of UAT</b> <ul style="list-style-type: none"> <li>• Videographer ensure that the video recording stop + video 1 participant</li> <li>• Facilitator to collect the UAT documents</li> <li>• Summarize and collate test documents</li> </ul>	Yusof Shanaaz Wah Chun
12.00pm – 12.15pm	<ul style="list-style-type: none"> <li>• UAT IC will explain the UAT objectives to the participants</li> <li>• Videographer to begin recording of the UAT process</li> </ul>	Wah Chun Yusof
12.15pm-2.30pm	<b>Second Session UAT Start</b> <ul style="list-style-type: none"> <li>• Facilitator to ensure that participants follow the Participant Instructions guide</li> <li>• Facilitator to remind participants to fill in the questionnaires accordingly</li> <li>• Observer(s) to observe participants reaction</li> <li>• Photographer should take as many photos as possible of the entire process</li> </ul>	Shanaaz Shanaaz Eng Sen Glen
2.30pm-3.00pm	<b>After the Second Session of UAT</b> <ul style="list-style-type: none"> <li>• Videographer ensure that the video recording stop + video 1 participant</li> <li>• Facilitator to collect the UAT documents</li> <li>• Summarize and collate test documents</li> </ul>	Yusof Shanaaz Wah Chun



## **LOGISTICS**

- 1) Tester's Package A x 7 [Wah Chun]
- 2) Tester's Package B x 7 [Wah Chun]
- 3) Observer's Document Google Form [Wah Chun]
- 4) UAT 1 Questionnaire Google Form [Wah Chun]
- 5) Script x 2 [Wah Chun]
- 6) Camera x 1 [Glen]
- 7) Video Camera x 1 [Yusof]
- 8) Heuristic Evaluation Google Form [Wah Chun]
- 9) Stopwatch [Everyone's Smartphones]

## DATA COLLECTION

<u>QUALITATIVE</u>	<u>QUANTITATIVE</u>
<ol style="list-style-type: none"><li>1. Which pre-tertiary institution participant was from</li><li>2. Main browser</li><li>3. Sources of programming education</li><li>4. Current knowledge of programming languages</li><li>5. 3 things users like about Singpath</li><li>6. 3 things users dislike about Singpath</li><li>7. Notes/Observation of Scenarios</li></ol>	<ol style="list-style-type: none"><li>1. Number of bugs found</li><li>2. Time taken to locate events page</li><li>3. Gender of participant</li></ol>

## RESULTS ANALYSIS

- Update bug matrix if applicable
- Schedule may need to be revised (reprioritized) depending on the outcome of UAT

## FOLLOW-UP

- Consolidate findings and prepare report
- Send thank you emailer to participants
- Update Wiki

## **HEURISTIC EVALUATION**

### **OBJECTIVE**

- To determine the heuristics of the developed functionalities by experts and prioritize improvements to UI in order to fulfil client's objective of increasing traffic and 'stickiness' (retention)
- Testers required : 4

### **TEST METHOD**

- Only those who have taken or are taking IDP can be 'experts'
- Run through UAT first to familiarize with Singpath then conduct Heuristic Evaluation

### **DATA COLLECTION**

- Approximate 5 Heuristic Problems each