



IT5038

Web Application project

Course Level: 5

Course Credits: 15

PROJECT OVERVIEW

Tasks	Duration	Deliverables	Marks
PART 1: PLAN	(6 days)		(30)
Task 1. Identify Problem	0.5 day	<i>Problem Definition</i> document	5
Task 2. Gather information and define requirements	1 day	<i>Requirements Definition</i> document	10
Task 3. Research similar sites	0.5 day	<i>Website Research</i> document, with a list of sites visited and UI ideas to avoid/adopt	5
Task 4. Research appropriate technologies/tools to use	0.5 day	<i>Technology Research</i> document, with a summary of technologies considered	2
Checkpoint with client / tutor		Updated planning documents	
Task 5. Learn the new technologies	3.5 days	<i>Technology Research</i> document, with a list of technologies to use and links/titles of materials studied	8
PART 2: DESIGN	(3 days)		(25)
Task 6. Design Solution	1 day	<i>Planning</i> document <i>System Design</i> document	10
Task 7. Prepare Test Plan and Test Cases	0.5 day	<i>Test Plan</i> document	5
Checkpoint with client / tutor / tester		Updated design and testing documents	
Task 8. Create UI mock-ups / prototypes	2 days	<i>UI Design</i> mock-ups (all screens/all devices)	10
PART 3: BUILD	(9 days)		(20)
Task 9. Build the web app/website	9 days	Completed site/app	20
PART 4: TEST	(2 days)		(15)
Task 10. Perform usability and user acceptance testing	0.5 day	Two <i>Test Reports</i> including incident reports: - 1 done by your tester - 1 done by you for your fellow student	10
Task 11. Fix issues based on user testing & regression test	1 day	Fixed site/app and feedback on incident reports Regression test report (by your tester)	5
PART 5: PRESENT	(2 days)		(10)
Task 12. Present your work to your instructor and classmates	1.5 days	Actual presentation Presentation materials, as appropriate	10
TOTAL	22 days		100

PROJECT SUBMISSION

Submission Checklist

Before you request an instructor to sign off your work, please make sure that you have uploaded the required project documentation to the CPP Online Learning System and that your web application meets all the requirements, as listed below.

Task	Items Required	Done
1	<i>Problem Definition</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Background information <input type="checkbox"/> Problem statement <input type="checkbox"/> Client name 	<input type="checkbox"/>
2	<i>Requirements Definition</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Purpose of the site/app <input type="checkbox"/> Stakeholders <input type="checkbox"/> Business objectives, goals, needs <input type="checkbox"/> User roles <input type="checkbox"/> User stories <input type="checkbox"/> Non-functional requirements 	<input type="checkbox"/>
3	<i>Website Research</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Three website evaluations <input type="checkbox"/> Interesting website features that you will consider 	<input type="checkbox"/>
4 and 5	<i>Technology Research</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Summary of technologies considered <input type="checkbox"/> Selected tools and technologies <input type="checkbox"/> Reference list of studied materials 	<input type="checkbox"/>
6	<i>Planning</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Scope of project <input type="checkbox"/> Time schedule for development steps <input type="checkbox"/> Estimated project costs 	<input type="checkbox"/>
6	<i>System Design</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Data model, if applicable <input type="checkbox"/> Functional decomposition, if applicable <input type="checkbox"/> Non-functional design considerations <input type="checkbox"/> Site map, including user help <input type="checkbox"/> Interaction design for interactive elements <input type="checkbox"/> Wireframes 	<input type="checkbox"/>

Task	Items Required	Done
7	<i>Test Plan</i> document, including: <ul style="list-style-type: none"> <input type="checkbox"/> Overall test plan <input type="checkbox"/> UAT test cases <input type="checkbox"/> Usability test cases <input type="checkbox"/> Cross-browser test cases 	<input type="checkbox"/>
8	<i>UI Design</i> , in the form of mock-ups or prototype screenshots <ul style="list-style-type: none"> <input type="checkbox"/> for all planned pages / screens <input type="checkbox"/> for all types of devices (mobile, tablet, desktop) 	<input type="checkbox"/>
9	Completed website/app meeting both business requirements and specific project requirements, as specified in task 9. <ul style="list-style-type: none"> <input type="checkbox"/> meets all planned requirements (check it against your list of requirements that are in scope) <input type="checkbox"/> addresses the specific task requirements as listed in the task description (also listed in the marking sheet) 	<input type="checkbox"/>
10	<i>Test Report</i> you <u>received</u> from your fellow student, including: <ul style="list-style-type: none"> <input type="checkbox"/> UAT results <input type="checkbox"/> Usability test results <input type="checkbox"/> Cross-browser test results <input type="checkbox"/> Incident reports for each defect found 	<input type="checkbox"/>
11	Amended <i>Test Report</i> including list of defects you have fixed/not fixed, with your response as developer.	<input type="checkbox"/>
11	Corrected website/app	<input type="checkbox"/>
11	Amended <i>Test Report</i> you have <u>received</u> with regression test results on your website/app (performed by your fellow student)	<input type="checkbox"/>
12	Presentation materials, as applicable	<input type="checkbox"/>

Documentation you produced for your fellow student		
Task	Items Required	Done
10	<i>Test Report</i> you <u>produced</u> as a Tester for your fellow student's application, including: <ul style="list-style-type: none"> <input type="checkbox"/> UAT results <input type="checkbox"/> Usability test results <input type="checkbox"/> Cross-browser test results <input type="checkbox"/> Incident reports for each defect found 	<input type="checkbox"/>
11	Amended <i>Test Report</i> with regression test results on your fellow student's website/app (performed by you as a Tester)	<input type="checkbox"/>

MARKING FORM

Student (Ākonga) Name:	
Student ID:	
Date submitted:	

Assessor Use Only			
Marks awarded:			
Total marks available:		100	
Percentage:			
Resubmit:	<input type="checkbox"/>	Grade awarded (max 50%):	
Assessor's name:			
Date marked:			

This assessment contributes 100% to your final course grade.

Tutor Feedback

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MARKING SHEET

Tasks	Marks Available	Marks Awarded
PART 1: PLAN	(30)	
Task 1. Problem Definition	5	
Task 2. Requirements Definition	10	
Task 3. Website Research	5	
Task 4. Technology Research	2	
Task 5. Technology Study	8	
PART 2: DESIGN	(25)	
Task 6. Planning & Solution Design	10	
Task 7. Test Plan and Test Cases	5	
Task 8. UI Design: mock-ups / prototypes	10	
PART 3: BUILD	(20)	
Task 9. Built web app/website	20	
PART 4: TEST	(15)	
Task 10. Test execution and reporting	10	
Task 11. Bug fix & regression test	5	
PART 5: PRESENT	(10)	
Task 12. Presentation	10	
TOTAL	100	

Detailed marking criteria are on the following pages.

Detailed Marking criteria

Task & Assessment criteria	Mark Available	Mark awarded
Task 1. Identify the Problem	(5)	
Background and statement of the problem clearly explained, target audience clearly defined, client identified.		
Task 2. Gather information and define requirements	(10)	
Purpose of the site/app clearly defined		
All stakeholders identified and listed		
Business objectives clearly defined		
User roles identified and described		
User requirements stated in the form of user stories		
Non-functional requirements identified		
Task 3. Research similar sites	(5)	
Relevant websites / apps researched (at least 3)		
Each website evaluated in terms of interesting / not interesting UI elements and features, as well as usability and user experience		
List of candidate features to implement included		
Task 4. Research appropriate technologies/tools to use	(2)	
Summary of technologies considered		
Selected technologies listed and are appropriate to the purpose of the website / app		
Organised and attended checkpoint with client/ tutor		
Task 5. Learn the new technologies	(8)	
Specific technologies studied have been listed, together with a reference list of study materials (at least 3 per tech) and a summary of findings		
Reference list includes author, title, date and url of resources used.		
Summary of findings includes a discussion of pros/cons of the technology and key points to remember when implementing the technology		

Task & Assessment criteria	Mark Available	Mark awarded
Task 6. Design Solution	(10)	
Planning - scope lists all included functional and non-functional requirements, as well as excluded requirements		
Planning - time Plan includes all required tasks		
Planning - project cost has been estimated		
Design – data model (if applicable), is documented as ERD, and shows all data entities, attributes and relationships		
Design – shows functional decomposition based on data model (if applicable)		
Design - site navigation/ site map shows all the pages needed, including user help		
Design – explains function of planned interactive elements		
Design - Wireframes provided for all pages		
Design - Wireframes provided for 3 device types (phone, tablet, desktop) for each page.		
Organised and attended checkpoint with client / tutor		
Task 7. Prepare a Test Plan	(5)	
All test planning elements included (overall plan, UAT, usability, cross-browser)		
Test plan includes recommended items or follows standard template.		
Test cases written effectively: simple steps, precise and easy to understand; include input data and expected results; named consistently.		
Both positive and negative test cases defined (e.g. test case using valid data/interactions <i>and</i> test case using invalid data/manipulations)		
Organised and attended checkpoint with tester		
Task 8. Create UI mock-ups/prototypes	(10)	
UI designs provided in the form of mock-ups or prototype screenshots		
Layout and colour palette follow aesthetic principles and align with the target audience		
Content easy to find and text easy to read		
Style is consistent across pages and follows UI design best practices		
UI design supports site's intent and purpose, drives user behaviour towards the site's goals and business objectives.		

Task & Assessment criteria	Mark Available	Mark awarded
Task 9. Build the web app/website	(20)	
Website/app meets the stated requirements and aligns with UI design		
implements search engine optimization (SEO)		
implements accessibility features		
implements security features		
provides positive, functional and pleasant user experience		
implements at least 4 CSS style rules effectively		
implements at least 6 interactive elements using JavaScript effectively		
uses HTML5 structure elements appropriately		
correctly implements a HTML5 form, including client-side validation		
uses at least 2 special HTML5 features effectively		
makes use of newly learnt technologies effectively.		
user help implementation follows user doc best practices		
Task 10. Perform usability and user acceptance testing (as a Tester)	(10)	
Evidence of test execution for each test case in test plan		
Between 5 and 10 incidents recorded; information sufficient to reproduce and understand the defect.		
Test report summarises number of tests performed and pass/fail results.		
Task 11. Fix issues based on user testing	(5)	
Evidence of changes made to address incidents, e.g. annotated incident reports, code comments.		
All high severity incidents fixed; medium severity incidents fixed or non-fix justified.		
Evidence of regression testing of fixed defects / incidents, (e.g. annotated test report, incident status changed)		
Task 12. Present your work to your instructor and classmates	(10)	
Presentation content is relevant, accurate, complete and persuasive; use of media appropriate and effective.		
Clarity of delivery: overall structure clear, logical flow, simple, easy to understand, main points summarised		
Style of delivery: well presented, polished, engaging, original, confidence		
Timing of delivery: within given timeframe		
Total	(100)	