



## **FINAL YEAR PROJECT REPORT**

# **ACADEMICH**

**In fulfillment of the requirement  
For degree of  
BSE (SOFTWARE ENGINEERING)**

**By**

<b>SARA JAMIL</b>	<b>(28322)</b>
<b>SYED AHAD ALI</b>	<b>(28326)</b>
<b>SHEIKH MASOOD</b>	<b>(28324)</b>

**SUPERVISOR**

**ENGR. MURSALEEN JAVEED**

## Acknowledgments

## Submission Performa

Name

- 1) Sara Jamil
- 2) Sheikh Masood
- 3) Syed Ahad Ali

Address

- 1) E-86/2, Nore IV, Karsaz, Karachi.
- 2) B-324, Asif Pride, Gulistan E Jauhar, Block 17, Karachi.
- 3) C-402, Saima Classic, Block 10, Gulashan E Ibal, Karachi.

Academich

Engr. M. Mursaleen Javed

This report is submitted as required for the project in accordance with the rules laid down by the Bahria University as part of the requirements for the award of the degree of Bachelor of Engineering. I declare that the work presented in this report is my own except where due reference or acknowledgement is given to the work of others.

Signatures of students

Date

(1).....  
(2).....  
(3).....

23/05/18.  
23/05/18  
23/5/18

Signature of Supervisor

Date

.....

23/5/18



## Acknowledgments

Firstly, we would like to thank Allah for the strength and courage to successfully complete our project after that, we would like to thank our beloved parents who believed in us and encouraged us and without their help and support we would have never been able to complete our project.

The success of this project was dependent on the complete supervision and help of many people and we are really privileged we got it all along. Our success of this project completely depends on the guidance and support that we have got from them and we truly thank them on every step. Also, we would like to express our appreciation towards Bahria University Karachi Campus institution members for co-operating and inspiring that help us incompletion the project.

We give our special gratitude to FYP supervisor **Engr. Mursaleen Javed** who lead us all along the way and took great interest in our project work and checked the progress in the project from time to time. He provided us required information for developing a good system and also he has put in his all efforts in guiding our project team accomplishing our goal.

We are very thankful for getting constant inspiration, provision, assistance and guidance from all the teaching staff members Software Engineering Department who helped us in successfully finishing our final year project.

## Abstract

This report has been compiled for the project ACADEMICH. The report consists of, in detail, the technical and theoretical aspects of the project. Initiated with basic introduction, background and literature review, the report continues to provides details of the decisions that were taken, the requirements being captured, assumptions being made and scope is clearly defined.

The project aims towards the provision of a platform that will cater to a variety of basic needs of an academically related individual. A student or a parent or a teacher can utilize this project to perform their daily tasks with efficiency and no fatigue. Services such as tutor and tuition finding, availability of delivery system of stationary, availability of books on different bookshops still lacks. The process of buying a complete course and uniform set for children is a tiring process and has the potential to be made effortless and pleasant. The availability of these services on a common platform is lacking and we wish to change that.

The conclusion of the report is to have a document of the final project at hand to be referred to at any point in future for any changes that might be made due to changes in requirements or needs of the users. It will also provide a reflection of the decisions that were made and why were they made.

Keywords: Academic, Web portal, Tuition portal, Online stationary, Tutor, Tutions.



## Table of Contents

### Contents

ACKNOWLEDGMENTS .....	II
ABSTRACT.....	III
TABLE OF CONTENTS .....	IV
LIST OF FIGURES .....	VII
LIST OF TABLES .....	VIII
<b>1. INTRODUCTION.....</b>	<b>9</b>
1.1 OVERVIEW OF THIS DOCUMENT .....	9
1.1.1 Chapter 1: Introduction .....	9
1.1.2 Chapter 2: Background and Literature Review .....	9
1.1.3 Chapter 3: Analysis and Design .....	9
1.1.4 Chapter 4: Methodology.....	9
1.1.5 Chapter 5: Implementation.....	10
1.1.6 Chapter 6: Testing .....	10
1.1.7 Chapter 7: Discussions.....	10
1.1.8 Chapter 8: Conclusion.....	10
1.1.9 Chapter 9: Future Work.....	10
1.1.10 Chapter 10: Appendices.....	10
1.1.11 Chapter 11: General Guidelines.....	10
1.2 BLOCK DIAGRAM: .....	11
1.3 PROBLEM STATEMENT: .....	11
<b>2. BACKGROUND AND LITERATURE REVIEW .....</b>	<b>12</b>
2.1 PROBLEM IN EXISTING SYSTEM.....	13
2.2 PROJECT DESCRIPTION .....	13
2.3 SCOPE STATEMENT .....	13
<b>3. ANALYSIS AND DESIGN .....</b>	<b>15</b>
3.1 REQUIREMENTS: .....	15
3.1.1 Functional Requirements:.....	15
3.1.2 Non- Functional Requirements:.....	15
3.1.3 Design requirements .....	15
3.1.4 Inverse requirements.....	16
3.1.5 Domain specific requirements .....	16
3.2 ACADEMICH LOGO .....	16
3.3 DATABASE DIAGRAM.....	17
3.4 CONTEXT DIAGRAM.....	18
3.5 ACTOR USE CASE DIAGRAM.....	18
3.6 DEVELOPMENT MODEL.....	18
3.7 PROCESS MODEL.....	19
3.8 ARCHITECTURE DIAGRAM .....	19

3.9	COMPONENT DIAGRAM.....	20
3.10	USE CASES (ANALYSIS).....	21
3.10.1	<i>Create Jobs</i> .....	21
3.10.2	<i>Filter Jobs</i> .....	22
3.10.3	<i>Approve Job Post</i> .....	23
3.10.4	<i>Disapprove Job Post</i> .....	24
3.10.5	<i>Add Product</i> .....	25
3.10.6	<i>Block/Manage User</i> .....	26
3.10.7	<i>Place Order</i> .....	27
3.10.8	<i>Confirm Order</i> .....	28
3.11	USE CASES (DESIGN).....	29
3.11.1	<i>Create Jobs</i> .....	29
3.11.2	<i>Filter Jobs</i> .....	30
3.11.3	<i>Approve Job Post</i> .....	31
3.11.4	<i>Disapprove Job Post</i> .....	32
3.11.5	<i>Add Product</i> .....	33
3.11.6	<i>Block/Manage user</i> .....	34
3.11.7	<i>Place Order</i> .....	35
3.11.8	<i>Confirm order</i> .....	36
3.12	SEQUENCE DIAGRAMS.....	37
3.12.1	<i>Create Jobs</i> .....	37
3.12.2	<i>Filter Jobs</i> .....	37
3.12.3	<i>Approve Job Posts</i> .....	38
3.12.4	<i>Disapprove Job Post</i> .....	38
3.12.5	<i>Add Product</i> .....	38
3.12.6	<i>Block/Manage Users</i> .....	39
3.12.7	<i>Place Order</i> .....	40
3.12.8	<i>Check Out</i> .....	40
3.13	ACTIVITY DIAGRAMS.....	41
3.13.1	<i>Create Jobs</i> .....	41
3.13.2	<i>Filter Jobs</i> .....	41
3.13.3	<i>Approve Job posts (admin)</i> .....	42
3.13.4	<i>Disapprove Job Posts (admin)</i> .....	43
3.13.5	<i>Add Product</i> .....	44
3.13.6	<i>Block/Manage users (admin)</i> .....	45
3.13.7	<i>Place Order</i> .....	46
3.13.8	<i>Check Out</i> .....	48
4.	METHODOLOGY.....	49
4.1	SYSTEM ARCHITECTURE.....	49
4.1.1	<i>Major Modules</i> .....	49
4.1.2	<i>Sub Modules</i> .....	49
4.2	DESIGN CONSTRAINTS.....	50
4.2.1	<i>Hardware and Software Environment</i> .....	50
4.2.2	<i>End user characteristics</i> .....	50
4.3	WORKFLOW DIAGRAM.....	51
4.4	PROJECT MANAGEMENT.....	53



4.4.1	<i>Gantt chart</i> .....	53
	.....	53
4.4.2	.....	54
4.4.3	.....	54
4.4.4	<i>Work breakdown structure</i> .....	55
<b>5.</b>	<b>IMPLEMENTATION</b> .....	<b>56</b>
5.1	TECHNOLOGY IMPLEMENTED.....	56
5.1.1	<i>Development Tools</i> .....	56
5.1.2	<i>Laravel 5.6 framework</i> .....	56
5.1.3	<i>Scraping</i> .....	56
5.1.4	<i>HCI Techniques for UI design</i> .....	56
5.2	CODE.....	56
5.2.1	<i>Tutor controller code:</i> .....	56
5.2.2	<i>Stationary Controller code:</i> .....	60
5.3	VALIDATION.....	63
5.3.1	<i>Checklist for system validation</i> .....	63
<b>6.</b>	<b>RESULTS</b> .....	<b>65</b>
6.1	INTERFACES .....	65
<b>7.</b>	<b>TESTING</b> .....	<b>75</b>
7.1	TESTING APPROACHES .....	75
7.1.1	<i>Black Box Testing</i> .....	75
7.2	WHITE BOX TESTING .....	83
7.2.1	<i>Algorithms</i> .....	83
<b>8.</b>	<b>DISCUSSION</b> .....	<b>88</b>
<b>9.</b>	<b>CONCLUSIONS</b> .....	<b>89</b>
<b>10.</b>	<b>FUTURE WORK</b> .....	<b>90</b>
<b>11.</b>	<b>APPENDICES</b> .....	<b>91</b>
11.1	APPENDICES A- SURVEY .....	91
<b>12.</b>	<b>REFERENCES</b> .....	<b>93</b>