



**FINAL YEAR PROJECT REPORT**

**PDF LIGHTNING**

**In fulfillment of the requirement  
For degree of  
BS (COMPUTER SCIENCES)**

**By**

**HIBA AKHTER**

**65252 (BSCS)**

**MUHAMMAD MUKARRUM**

**65238 (BSCS)**

**LAVISHA CHHATWANI**

**65227 (BSCS)**

**SUPERVISED**

**BY**

**MR MUHAMMAD MAROUF**

**BAHRIA UNIVERSITY (KARACHI CAMPUS)**

**SPRING-2023**

**DECLARATION**

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

Signature : Hiba Akhter

Name : Hiba Akhter

Reg No. : 65252

Signature : Mi

Name : Muhammad Mukarrum

Reg No. : 65238

Signature : Lavisha

Name : Lavisha Chhatwani

Reg No. : 65227

Date : 07- July - 2023

**APPROVAL FOR SUBMISSION**

We certify that this project report entitled “**PDF LIGHTNING**” was prepared by Hiba Akhter, Muhammad Mukarram and Lavisha Chhatwani has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Science in Computer Science at Bahria University, Karachi.

Approved by,

Signature : \_\_\_\_\_

Supervisor : Mr Muhammad Marouf

Date : 07 - July - 2023

The copyright of this report belongs to Bahria University according to the Intellectual Property Policy of Bahria University BUORIC-P15 amended on April 2019. Due acknowledgement shall always be made of the use of any material contained in, or derived from, this report.

© 2023 Bahria University. All right reserved.

## ACKNOWLEDGEMENTS

We would like to thank everyone who had a hand in the successful completion of this project. We would like to express my gratitude to my retired supervisor, Mr. Mohammad Marnuf for his invaluable advice, suggestions and for encouraging me throughout the development of the research.

**Specially dedicated to**

**My beloved grandmother, mother and father**

**Hiba Akhter**

**My beloved grandmother, mother and father**

**Muhammad Mukarrum**

**My beloved grandmother, mother, and father**

**Lavisha Chhatwani**

## ACKNOWLEDGEMENTS

We would like to thank everyone who had contributed to the successful completion of this project. We would like to express my gratitude to my project supervisor, Mr Muhammad Marouf for his invaluable advice, guidance and his enormous patience throughout the development of the research.

In addition, we would also like to express our gratitude to our loving parents and friends who have helped and given us encouragement.

## PDF LIGHTNING

### ABSTRACT

Salesforce PDF generator is a feature within the Salesforce platform that allows users to generate and customize PDF documents from data stored within Salesforce. This feature enables users to quickly and easily create professional-looking PDFs that can be used for a variety of purposes, such as invoices, contracts, and reports. Additionally, the ability to customize PDF documents allows users to tailor their PDFs to meet their organization's specific needs.

This project uses Salesforce's platform and data for the development of the software. The main purpose to use Salesforce's platform is to have new experiences with cloud-based languages. The project's UI is designed on the salesforce lightning web components. Lightning Web Components are a user interface framework that Salesforce Developers use for custom-created pages and functions within salesforce. Lightning web components use a standardized JavaScript framework, HTML, and CSS, without a third-party framework. The project's backend work is done by using a salesforce programming language Apex which supports the salesforce lightning web component.

Salesforce PDF generation refers to the process of creating and generating Portable Document Format (PDF) files from data stored in the Salesforce platform. This feature allows users to easily export data from Salesforce into a readable, printable format for sharing and presenting information. The data which is gathered or retrieved from the user's template is then mapped with the salesforce objects for the final creation of the file replacing the placeholder's from the template with the data from the salesforce.

The generated PDFs can be used for a variety of purposes, such as presenting information in a professional format, sharing data with internal teams, customers, or partners, and creating records that can be easily retrieved and referenced in the future. Salesforce PDF generation can be automated and customized to meet the specific needs and requirements of the organization, making it a versatile tool for data presentation, and sharing.

## TABLE OF CONTENTS

<b>DECLARATION</b>	<b>ii</b>
<b>APPROVAL FOR SUBMISSION</b>	<b>iii</b>
<b>ACKNOWLEDGEMENTS</b>	<b>vi</b>
<b>ABSTRACT</b>	<b>vii</b>
<b>TABLE OF CONTENTS</b>	<b>viii</b>
<b>LIST OF FIGURES</b>	<b>x</b>
<b>LIST OF SYMBOLS / ABBREVIATIONS</b>	<b>xii</b>
<b>LIST OF APPENDICES</b>	<b>xiii</b>
<b>CHAPTER</b>	
<b>1 INTRODUCTION</b>	<b>14</b>
1.1 Background	14
1.2 Problem Statement	14
1.3 Objectives and Aims	15
1.4 Software Tools Required	15
1.5 Languages Used	15
1.6 Scope of Project	15
<b>2 LITERATURE REVIEW</b>	<b>17</b>
<b>3 REQUIREMENT SPECIFICATIONS</b>	<b>21</b>
3.1 Existing System	21
3.2 Proposed System	22
3.3 Requirement Specifications	23
3.3.1 Functional Requirements	23
3.3.2 Non Functional Requirements	24
3.4 Use Cases	25

<b>4</b>	<b>DESIGN AND METHODOLOGY</b>	<b>27</b>
4.1	Design	27
4.2	Methodology of Project	29
4.3	Project Flow	30
<b>5</b>	<b>SYSTEM IMPLEMENTATION</b>	<b>31</b>
5.1	System Architecture	31
5.2	Technology Stack	32
5.2.1	Requirements	32
5.2.2	Languages Used	32
5.2.3	Extensions Used	32
5.2.4	Tools Used	32
5.2.5	Frameworks Used	33
5.2.6	Static Resources Used	33
5.3	Software Process Model	33
5.4	System's Entity Relation Diagram	35
<b>6</b>	<b>SYSTEM TESTING AND EVALUATION</b>	<b>36</b>
6.1	System Testing	36
6.1.1	Test Cases	36
6.1.2	System Testing	49
6.2	Evaluation	54
<b>7</b>	<b>CONCLUSION AND FUTURE WORK</b>	<b>56</b>
7.1	Conclusion	56
7.2	Future Work	57
	<b>REFERENCES</b>	<b>58</b>
	<b>APPENDICES</b>	<b>60</b>
	APPENDIX A: PDF Generator Data(CODE)	60
	APPENDIX B: Custom Modal Popup (CODE)	66