

## TABLE OF CONTENT

Validity Sheet .....	i
Acknowledgements .....	ii
Validity Sheet Thesis .....	iv
Abstrack .....	v
Table of Content .....	vi
List of Tables .....	ix
List of Figure .....	x
<b>CHAPTER I</b>	
Introduction .....	1
1.1. Background .....	1
1.2. Problem Identification .....	2
1.3. Research Purpose .....	2
1.4. Benefits of the Study .....	2
1.5. Limitation of the Study .....	2
1.6. Data Collection Techniques .....	3
1.7. Design Thinking .....	4
1.8. Research Framework .....	6
1.9. Writing System .....	7
<b>CHAPTER II</b>	
Literature Review.....	8
2.1. Sport Industry .....	8
2.2. Hybrid Mobile Application .....	8
2.2.1. Flutter .....	8
2.3. Extreme Programming (XP) .....	9
2.4. Unified Modeling Language (UML) .....	10
2.5. Quick Response Code .....	11
2.5.1. Barcode Widget .....	11
2.6. End to End Testing .....	12
2.6.1. Horizontal end-to-end testing .....	12
2.6.2. Vertical end-to-end testing .....	12
2.7. Support Software.....	12
2.7.1. Visual Studio Code (VSCode) .....	12

2.7.2. Adobe XD .....	13
<b>CHAPTER III</b>	
<b>Research Methodology .....</b>	<b>14</b>
3.1. Planing .....	14
3.2. Design Plannig .....	14
3.3. Reference Journal.....	14
3.3.1. A First Journal .....	14
3.3.2. A Second Journal.....	15
3.4. Prototype Design Planning .....	15
3.5. Problem Analysis .....	16
3.6. Solution .....	16
3.7. User Story .....	17
3.8. User Requirements .....	18
3.8.1. User Interface .....	18
3.8.2. Features .....	18
3.9. Unified Modeling Language .....	19
3.10. Wireframe .....	29
<b>CHAPTER IV</b>	
<b>Result and Discussion .....</b>	<b>31</b>
4.1. Design Mockup .....	31
4.1.1. Initial Mockup .....	31
4.1.2. Design Improvement on a Mockup .....	36
4.2. Coding .....	43
4.2.1. Directory Structure .....	43
4.2.2. Writing Code with flutter .....	43
4.3. Testing .....	51
4.4. Prototype Result of Biem Sport App .....	60
4.5. Venue Search .....	66
4.6. Venue Booking .....	66
4.10. Payments .....	67
4.11. Ticket and Schedule.....	67
4.12. QR Code Check-in .....	68

4.13. Event ..... 68

CHAPTER V

Conclution and Sugestion ..... 69

References ..... 70

## LIST OF TABLES

Tabel 1.1: Data Collection Model.....	3
Tabel 1.2: Writing System .....	7
Tabel 3.1: Prototype Design Planning .....	15
Tabel 3.2: User Actor (Use Case) Description .....	19
Tabel 3.3: Admin Panel Actor (Use Case ) Description .....	21
Tabel 3.4: Activity Diagram Basic Notation .....	22
Tabel 3.5: Activity Diagram Description.....	26
Tabel 3.6: Sequence Diagram Description .....	28
Tabel 3.7: Use Case Description.....	30
Tabel 4.1: Splash Screen Testing Result .....	51
Tabel 4.2: Introduction Page Testing Result .....	51
Tabel 4.3: Landing Page Testing Result .....	52
Tabel 4.4: Form Page Testing Result .....	52
Tabel 4.5: Home Page Testing Result .....	53
Tabel 4.6: Profile Page Testing Result .....	53
Tabel 4.7: Ticket Page Testing Result .....	54
Tabel 4.8: Ticket Detail Page Testing Result .....	54
Tabel 4.9: Event Page Testing Result .....	54
Tabel 4.10: Venue Page Testing Result .....	54
Tabel 4.11: Venue Detail Page Testing Result .....	55
Tabel 4.12: Booking Page Testing Result .....	55
Tabel 4.13: Confirm Booking Page Testing Result .....	55
Tabel 4.14: Succesfull Booking Page Testing Result .....	56
Tabel 4.15: Schedule Page Testing Result .....	56
Tabel 4.16: History Page Testing Result .....	56
Tabel 4.17: Messege Page Testing Result .....	56
Tabel 4.18: Notification Page Testing Result .....	57
Tabel 4.19: Setting Page Testing Result .....	57
Tabel 4.20: Logout Page Testing Result .....	57
Tabel 4.21: Rate Page Testing Result .....	57
Tabel 4.22: Help Center Page Testing Result .....	58
Tabel 4.23: Voucher Page Testing Result .....	58
Tabel 4.24: Promo Page Testing Result .....	58

Tabel 4.25: Change Language Page Testing Result .....	58
Tabel 4.26: Invite Friends Page Testing Result .....	59
Tabel 4.27: Search Page Testing Result .....	59

## LIST OF FIGURE

Figure 1.1: Thinking Framework .....	6
Figure 2.1: Extreme Programming .....	9
Figure 3.1: User Story .....	17
Figure 3.2: Use Case Diagram .....	19
Figure 3.3: Login and Register Activity Diagram .....	23
Figure 3.4: Booking Activity Diagram .....	24
Figure 3.5: Event Activity Diagram .....	25
Figure 3.6: Class Diagram .....	27
Figure 3.7: Sequence Diagram .....	28
Figure 4.1: Splash Screen Mockup .....	31
Figure 4.2: Introduction Page Mockup .....	32
Figure 4.3: Landing Page Mockup.....	32
Figure 4.4: Form Page Mockup .....	33
Figure 4.5: Home and ProfilePage Mockup .....	33
Figure 4.6: Ticket Page Mockup.....	34
Figure 4.7: Event Page Mockup.....	34
Figure 4.8: Venue Page Mockup .....	35
Figure 4.9: Booking Page Mockup .....	35
Figure 4.10: Splash Screen Design Improvement .....	36
Figure 4.11: Introduction Page Design Improvement.....	36
Figure 4.12: Landing Page Design Improvement .....	37
Figure 4.13: Home Page Design Improvement.....	37
Figure 4.14: Form Page Design Improvement.....	38
Figure 4.15: Profile Page Design Improvement .....	39
Figure 4.16: Ticket Page Design Improvement .....	39
Figure 4.17: Ticket Detail Page Design Improvement .....	40
Figure 4.18: Event Page Design Improvement .....	40
Figure 4.19: Venue Page Design Improvement.....	41
Figure 4.20: Booking Page Design Improvement.....	41
Figure 4.21: Confirm Booking Page Design Improvement.....	42
Figure 4.22: Directory Structure .....	43
Figure 4.23: Splash Screen Design Implementation.....	44
Figure 4.24: Introduction Page Design Implementation.....	44

Figure 4.25: Landing Page Design Implementation .....	45
Figure 4.26: Form Page Design Implementation .....	45
Figure 4.27: Home Page Design Implementation.....	46
Figure 4.28: Drawer Design Implementation .....	46
Figure 4.29: Search Page Design Implementation.....	47
Figure 4.30: Profile Page Design Implementation.....	47
Figure 4.31: Ticket Page Design Implementation .....	48
Figure 4.32: Event Page Design Implementation .....	48
Figure 4.33: Venue Page Design Implementation .....	49
Figure 4.34: Booking Page Design Implementation.....	49
Figure 4.35: Schedule Page Design Implementation.....	50
Figure 4.36: Check-in Page Design Implementation.....	50
Figure 4.37: Notification Page Design Implementation .....	51
Figure 4.38: Prototype Result of Biem Sport App (1).....	60
Figure 4.39: Prototype Result of Biem Sport App (2).....	61
Figure 4.40: Prototype Result of Biem Sport App (3).....	62
Figure 4.41: Prototype Result of Biem Sport App (4).....	63
Figure 4.42: Prototype Result of Biem Sport App (5).....	64
Figure 4.43: Prototype Result of Biem Sport App (6).....	65
Figure 4.44: Venue Search.....	66
Figure 4.45: Venue Booking.....	66
Figure 4.46: Payment.....	67
Figure 4.47: Ticket and Schedule .....	67
Figure 4.48: QR Code Check in.....	68
Figure 4.49: Event.....	68