Universiti Teknologi MARA
Cawangan Melaka

In partnership with
Tadulako University

i-JaMCSIIX
2023

# EXTENDED ABSTRACT BOOK

**Publication Date: 30 March 2024**
**ISBN: 978-967-15337-0-3**

https://jamcsiix.uitm.edu.my

# i-JaMCSIIX 2023

INTERNATIONAL JASIN MULTIMEDIA & COMPUTER SCIENCE INVENTION AND INNOVATION EXHIBITION (I-JaMCSIIX) 2023

**EXTENDED ABSTRACT**


ISBN: 978-967-15337-0-3
i-JaMCSIIX
Universiti Teknologi MARA Cawangan Melaka Kampus Jasin 77300, Merlimau, Melaka

**Web:** https://jamcsiix.uitm.edu.my

In partnership with
Tadulako University

# ORGANIZING COMMITTEE

| | |
|---|---|
| **PATRON** | PM DR ISMADI MD BADARUDIN |
| **ADVISOR I** | TS DR JAMALUDDIN HJ JASMIS |
| **ADVISOR II** | DATO' DR MOHD HAJAR HASROL JONO |
| **PROGRAM DIRECTOR** | **DR. NUR SUHAILAYANI SUHAIMI** |
| **DEPUTY DIRECTOR** | TS DR NURUL HIDAYAH BINTI MAT ZAIN |
| **SECRETARY I** | **ANIS SHOBIRIN ABDULLAH SANI** |
| **SECRETARY II** | FAIQAH HAFIDZAH HALIM |
| **TREASURER I** | **SITI AISYAH ABD KADIR** |
| **TREASURER II** | UMMU MARDHIAH JALIL |
| **PUBLICATION** | **NURBAITY BINTI SABRI**<br>DR. SITI FEIRUSZ AHMAD FESOL<br>DR. AHMAD FIRDAUS BIN AHMAD FADZIL<br>SITI NURAMALINA BINTI JOHARI<br>ROSNIZA ROSLAN |
| **JURY** | **Ts DR. ALYA GEOGIANA BUJA**<br>NORBAHIYAH AWANG<br>Ts. DR. NOR AFIRDAUS ZAINAL ABIDIN<br>DR. RAIHAH AMINUDDIN<br>NOOR AFNI DERAMAN |
| **REGISTRATION** | **SITI FAIRUS BINTI FUZI**<br>BUSHRA BINTI ABDUL HALIM<br>NORDIANAH BINTI JUSOH@HUSSAIN<br>AINON SYAZANA BINTI AB HAMID<br>SITI NURSYAHIRA BINTI ZAINUDIN |
| **SYSTEM** | **FADILAH EZLINA SHAHBUDIN**<br>HAJAR IZZATI MOHD GHAZALLI<br>FADHLINA IZZAH SAMAN<br>NOR AZIDA MOHAMED NOH |
| **INVITATION AND PROMOTION** | **SHAHITUL BADARIAH SULAIMAN**<br>IZNI SYAMSINA SAARI<br>NOR ADILA KEDIN |

| | |
|---|---|
| | ADI HAKIM BIN TALIB |
| | MOHD AMIRUL BIN ATAN |
| **MULTIMEDIA** | **Ts. NURUL NAJWA ABDUL RAHID@ABDUL RASHID** |
| | NOOR ASHITAH ABU OTHMAN |
| | ANWAR FARHAN ZOLKEPLAY |
| **AWARD** | **ANITA BINTI MOHD YASIN** |
| | NURUL EMYZA ZAHIDI |
| | FATIMAH HASHIM |
| | SITI RAMIZAH JAMA |
| | DR NURUL HUDA NIK ZULKIFLI |
| | MARIATHY BINTI KARIM |
| **CERTIFICATE** | **KHAIRUL NURMAZIANNA ISMAIL** |
| | NUR NABILAH ABU MANGSHOR |
| | ZUHRI ARAFAH ZULKIFLI |
| | HAZRATI ZAINI |
| **INTERNATIONAL RELATIONS** | **Ts. DR. SITI RAHAYU ABDUL AZIZ** |
| | ALBIN LEMUEL KUSHAN |
| | SHAHADAN SAAD |
| **LIAISON OFFICER** | **SYAFNIDAR ABDUL HALIM** |
| | AJK WAKIL UNTAD |
| **SPONSORSHIP** | **ANIS AMILAH SHARI** |
| | MOHD RAHMAT MOHD NOORDIN |
| | DR YUZAIMI YUNUS |
| | DR SURYAEFIZA KARJANTO |
| **SECRETARIAT & APPRECIATION BANQUET** | **RAIHANA MD SAIDI** |
| | NUR SYUHADA BINTI MUHAMMAT PAZIL |
| | ANIS AFIQAH SHARIP |
| | SITI MAISARAH MD ZAIN |
| | HAZWA HANIM MOHAMED HAMZAH |

## UNTAD'S COMMITTEE FOR I-JAMCSIIX 2023:

PROF. IR. MARSETYO, M.AG., PH.D.

PROF. I WAYAN SUDARSANA, S.SI., M.SI.

PROF. JUNAIDI, S.SI., M.SI., PH.D.

ELISA SESA, S.SI., M.SI., PH.D.

MUKRIM, M.ED., PH.D.

ZARKIANI HASYIM, S.PD., M.ED.

DR. HJ. ANI SUSANTI, M.SI.

DR. ISKANDAR, M.HUM.

DR. IR. ROIS., MP.

SYARIFUL ANAM, S.SI., M.SI., PH.D.

DR. NAHARUDDIN, S.PD, M.SI.

DR. DRG. ELLI YANE BANGKELE, M.KES.

HERMAN, SKM., M.MED.ED.

DR. IR. SAMLIOK NDOBE, M.SI.

DR. RAHMAT BAKRI, S.H., M.H.

DR. HAERUL ANAM, SE., M.SI.

DR. IR. BAKRI, S.T., PG. DIPL. ENG., M.PHIL.

DR. IR. MUHAMMAD YAZDI PUSADAN, S.KOM., M.ENG.

IR. SYAIFUL HENDRA, S.KOM., M.KOM.

RIZANA FAUZI S.T., M.T.

MOHAMMAD FAJRI, S.SI., M.SI.

NURUL FISKIA GAMAYANTI, S.SI., M.SI.

DR. NUR'ENI, S.SI., M.SI.

IMAN SETIAWAN, S.SI., M.SI.

FADJRIYANI, S.SI., M.SI.

## LIST OF SPONSORS

### External Company Sponsors


*Klinik Dr Jamaluddin*
*Klinik Mawar Jasin*
*Nasi Ayam Ala Cina Zul*
*ADS Oasis Enterprise*
*Noorys Enterprise*
*Che Ramli bin Che Ismail*
*Beria Maju Enterprise*
*Rintiz rezeki*
*H&K food cafe*
*HS Gerak Wawasan*

### Individual Sponsors

*En. Muhammad Hanif bin Abdul Aziz*
*Nor Suhaida binti Karjanto*

# Table of Contents

Universiti Teknologi MARA Cawangan Melaka
i-JaMCSIIX 2023
International Jasin Multimedia & Computer Science Invention and Innovation Exhibition
In Partnership with: Tadulako University

# Development of Mobile App: FuneralServices System (FSS)

Nur Aqilah Binti Hanapi[1], Nur Afiqah Syuhada Binti Abdul Kodir[2], Syafnidar Binti Abdul Halim[3]

[1,2,3] Universiti Teknologi MARA, Malaysia

2020865978@student.uitm.edu.my, 2020866096@student.uitm.edu.my, syafnidar@uitm.edu.my

***Abstract*—The funeral services industry plays a crucial role in delivering end-of-life care and support to bereaved families during a challenging and emotionally charged period. Nonetheless, the intricacies of funeral planning and coordination often contribute to an overwhelming, confusing, and time-consuming experience, exacerbating the stress already present during this sensitive time. This underscores the necessity for a comprehensive and user-friendly platform that addresses the complexities and limitations inherent in the funeral services sector, encompassing data management and personalization of final arrangements. This project fulfills this need through the development of a mobile application named Funeral Services System (FSS), aimed at streamlining the funeral planning process for the deceased. Leveraging the Flutter platform and employing Visual Studio Code for coding purposes, the app utilizes Firebase as its database infrastructure. The successful execution of the Funeral Services System (FSS) has produced a functional platform to revolutionize the delivery of funeral services. This innovation promises families a more accessible and personalized platform for arranging their loved one's final arrangements. In charting the course for future development efforts, we propose the integration of a payment feature to enhance the overall functionality and convenience of the Funeral Services System (FSS).**

***Keywords—funeral services, funeral planning, mobile app, Flutter, Visual Studio Code***

## I. INTRODUCTION

The funeral industry provides crucial end-of-life care and support to families during a difficult and emotional time [1]. However, navigating this sector has been challenging due to complex procedures and limited accessibility for families in need. The intricate and multifaceted nature of the funeral planning and coordination process engenders feelings of overwhelm, confusion, and time constraints, thereby compounding the emotional burden experienced by families during this delicate period. To mitigate these challenges, there arises a compelling requirement for the development of a comprehensive and accessible platform. This platform should be designed to streamline the funeral planning and coordination process, concurrently affording families an expansive array of options to customize and tailor the final arrangements of their departed loved ones. The development of a mobile application, Funeral Services System (FSS), aims to address these challenges and provide a solution to the problems faced by families when navigating the funeral services industry. Mobile applications are small, portable, and user-friendly software packages that allow individuals to communicate, access the internet, manage files, and enjoy themselves from anywhere. Even entry-level and cheap phones can download and run theseapplications easily [2].

The Funeral Services System (FSS) is an innovative platform that simplifies and streamlines the funeral planning and coordination process, providing families with a wide range of options to personalize their loved one's final arrangements. The Funeral Services System (FSS) marks a important progression in the delivery of funeral services, presenting families with an enhanced and more meaningful end-of-life experience. This system holds the promise of fundamentally transforming the conventional approach to funeral services, affording a heightened level of accessibility and personalization in the platform dedicated to final arrangements. [3].

## II. METHODS

Figure 1 shows the flowchart for the project. The user opens the app and registers with all required information. After registration, they can log in with their username and password, view the service fee, and book by clicking the booking button. The user then fills in the booking form with all necessary information about the deceased and submits it by clicking the submit button. The system identifies the agent closest to the deceased based on district information. The agent can approve or decline the booking and, if approved, complete the process by clicking the done button.

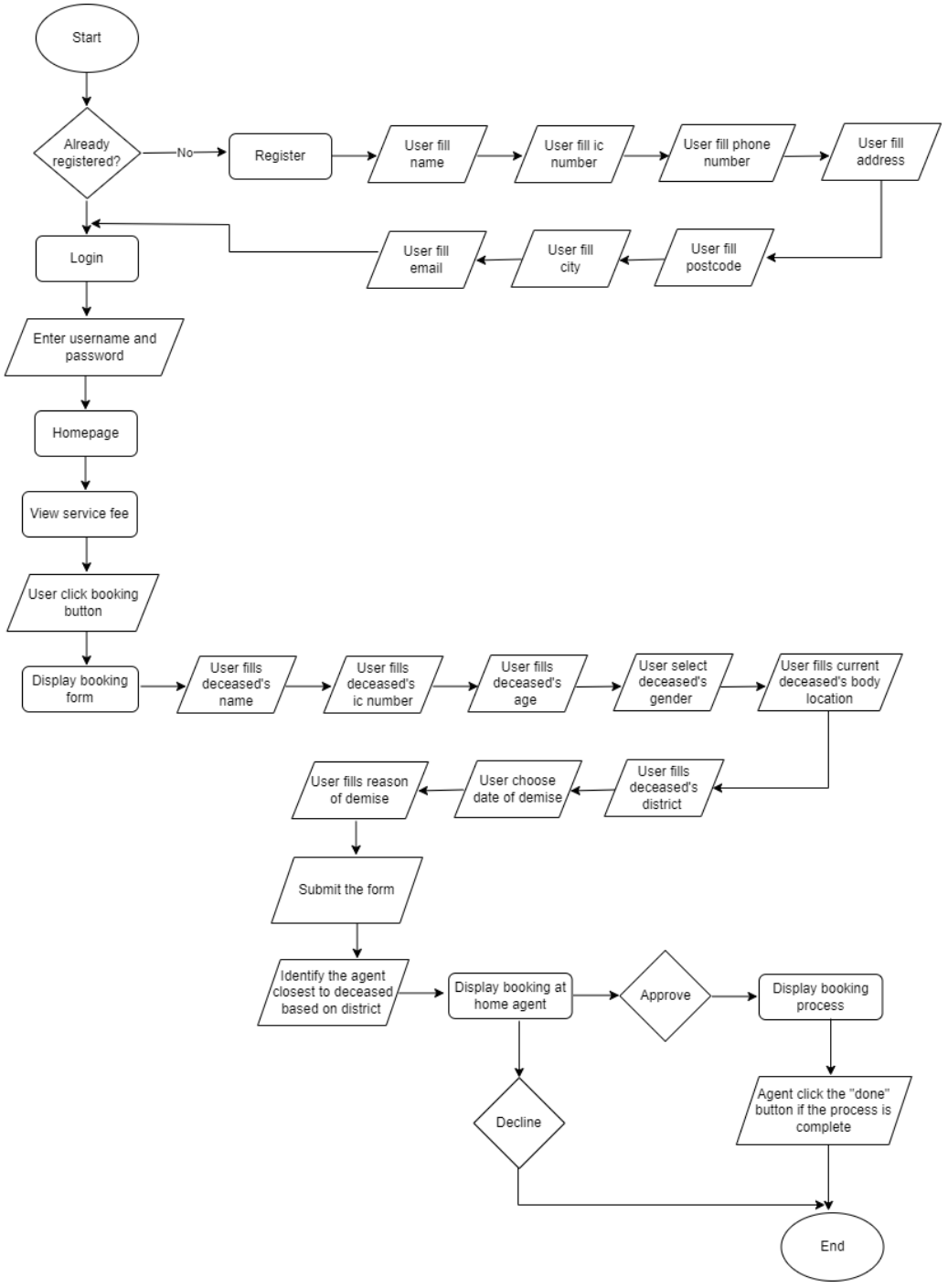
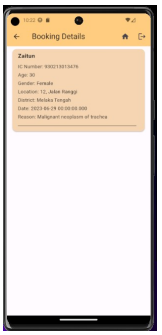
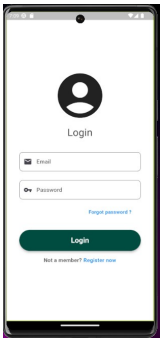
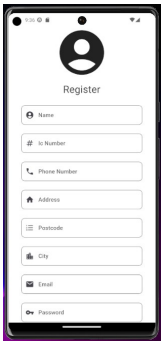
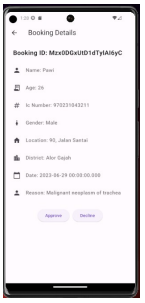
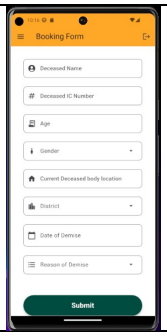



Figure 1 Project Flowchart

Table 1 summarizes the Funeral Services System (FSS) application interfaces with its description.

| User Interface | Description | User Interface | Description |
|---|---|---|---|
|  | **A.**<br>On welcome page, the user needs to click "Get Started" first to redirect to login page |  | **F.**<br>After the user submits the form, the system will identify the agent closest to the deceased based on the district information. |
|  | **B.**<br>Users are required to fill out a login form before gaining access to the system. |  | **G.**<br>The user's booking appears on the agent's homepage based on the district. |
|  | **C.**<br>If the user is not registered, they can click on the 'Register' button to create a new account. |  | **H.**<br>The agent has the option to approve or decline the booking. |
|  | **D.**<br>Once a user logs in, they will be able to view the home page. |  | **I.**<br>If the agent approves the booking, the booking process is displayed, and when it is completed, the agent clicks the done button. |
| | **E.**<br>The user needs to fill all detail about the deceased before | | |

| | | | | |
|---|---|---|---|---|
| |  | submitting the form | | |

## III. RESULTS AND DISCUSSION

The analysis of results ensures the development of a functional and efficient system that meets the outlined objectives. To ensure effective functionality, we have conducted testing to ensure the system performs as expected and achieves its objectives.

### A. System Security

To fortify the integrity and confidentiality of the system's access, our project mandates the use of an 8-character password as part of our rigorous security measures [4]. Important aspects of system security in netcentric computing include:

1. Authentication and Authorization:

Verifying user or system identities and granting appropriate access privileges based on roles or permissions is crucial to this project. Users and agents must log in using their registered email and password to access their respective homepages. Users will be directed to the user homepage, while agents will be directed to the agent homepage upon logging in.

2. Security Auditing and Logging:

In the digital ecosystem, providing an incorrect password triggers security protocols that prevent both the user and agent from accessing the system's sensitive data repositories and underlying functionalities as shown in Figure 2.

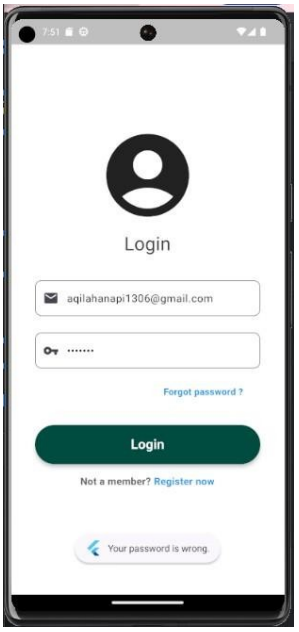



Figure 2 Incorrect Password Notification

### B. Manipulation of data

Data manipulation is crucial in optimizing the booking process for this project [5]. When a user initiates a booking, the

system sorts data based on the district provided by the user and matches it with the corresponding district of available agents. This ensures efficient and localized handling of bookings. For example, if a user enters 'Alor Gajah' as the district, the booking will be intelligently routed to the agent assigned to 'Alor Gajah' as shown in Figure 3.

Figure 3 Example of Automated Home Agent Assignment

## IV. CONCLUSIONS

In conclusion, the project has been executed successfully, resulting in the development of a functional and efficient system. The application's design, usability, and performance have met the outlined objectives, and effective functionality. We have run the testing to ensure the system functions as expected to achieve the objective. As a result of meticulous planning, systematic execution, and functionality testing, the project has achieved its intended goals. For the future work of development, we suggest integrating the payment future.

## REFERENCES

[1] Korai, B., & Souiden, N. (2017). Rethinking functionality and emotions in the service consumption process: the case of funeral services. Journal of Services Marketing, 3, 247–264. https://doi.org/10.1108/jsm-03-2015-0132

[2] Islam, M. R., & Mazumder, T. A. (2010). Mobile Application and Its Global Impact. In Article in International Journal of Engineering and Technology. https://www.researchgate.net/publication/308022297

[3] OpusBlog. (2021, March 4). It’s Time for a Digital Transformation in the Death Care Industry - OpusXenta. https://opusxenta.com/its-time-for-a-digital-transformation-in- the-death-care-industry/

[4] Henry, J. (2022, March 21). Passwords Should Exceed 8 Characters For Heightened Security, Researchers Suggest | Here’s Why | Tech Times. Tech Times. https://www.techtimes.com/articles/273268/20220321/passwords-exceed-8-characters-heightened-security-researchers-suggest-heres-why.htm

[5] GeeksforGeeks. (2023b, September 2). Data Manipulation: Definition, Examples, and Uses - GeeksforGeeks.. https://www.geeksforgeeks.org/data-manipulation/

# i-JaMCSIIX 2023

PUBLISHED BY:
i-JaMCSIIX
Universiti Teknologi MARA Cawangan Melaka
Kampus Jasin
77300 Merlimau, Melaka

Tel: 062645000
Email: jamcsiix@uitm.edu.my
Web: https://jamcsiix.uitm.edu.my/