

# Building TariPedia App as A Typical Balinese Performance Encyclopedia on Mobile Device Platform

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## Abstract

*Indonesia is a country with a variety of cultures and arts. Traditional art dance is one of Indonesia's arts which is one of the important aspects in supporting Indonesian culture and even tourism. Traditional dance has a special attraction to be enjoyed while staying in the midst of rapid development. Therefore, the writer makes a market application that connects the studios, dance groups, and dancers with traditional dancer tenants. TariPedia makes it easy for studio owners, service providers, and event organizers to market their services so that they can be more easily reached by the public and can increase sales of their services with the payment feature through the application. Therefore by developing TariPedia with Prototyping Method and Java Language in its development, TariPedia will continue facilitates the community, especially in the fields of traditional dance and at the same time modernizing regional arts.*

**Keywords:** *Traditional Dancers, Information System, Prototyping, E-Ticket, Ensiklopedia*

## 1. Introduction

Traditional dance is one of Indonesia's arts which is one of the important aspects in supporting culture and even tourism in Indonesia. Traditional dance has a special attraction to be enjoyed even in the midst of the rapid development of the era.

Traditional dance performances are often one of entertainment in various events or activities, both formal and informal. On the other hand, many studios and dance groups that provide dance services to be used as a show at various events.

The island of Bali, or often referred to as the Island of the Gods, is one of Indonesia's icons which is thick with dance art. Dance has become an important aspect in supporting Balinese culture which is very influential in terms of customs, culture, and tourism. Balinese dance has a special attraction to be enjoyed despite being in the midst of the rapid development of technology, various kinds of art have emerged at this time and are increasingly sophisticated by utilizing existing technology. However, through our survey, we found a problem that will be a big challenge for the existence of Balinese Dance. As many as 75% of respondents said that currently Balinese Dance is increasingly eroded due to the lack of interest from the younger generation to find out and learn Balinese Dance due to the difficulty of getting information about Balinese dance. In addition, 65.9% of respondents said that they had an event involving dancers to fill an event at the event, but had difficulty finding information about dance studios that provided dancers' services

At present, information about studios and dance groups that provide traditional dance rental services is still very difficult to obtain. On the internet, information about renting traditional dance services is still in the form of general information, in other words the information contained is only in the form of contact information from providers of traditional dance rental services. In addition, studio information that rents out traditional dance services and dance attributes is still fragmented, so that people still find it difficult to access this information in one place providing information. At present, the community is still very difficult to get information about traditional dance events.

Based on this description the authors innovate to create a mobile-based application called "TariPedia" which is a place for various information related to dances as well as to rent traditional dance services and purchase tickets for traditional dance performance events online. Through the application "TariPedia" is expected to facilitate the public in renting traditional dance services and purchasing tickets for traditional dance performances events online only in the palm of their hand. Managers can get profit from the commission obtained from each transaction made through the application "TariPedia".

## 2. Research Methods

### 2.1 Use Case

#### 2.2.1 Use Case Description

The following use case diagram from TariPedia

##### 1) User, Event and Dance Management Login Use Case

Name	Login
Actor	User, Dance Management, and Event Management
Description	User, Dance Management, and Event Management can login to enter the application. In this user login process the application will verify data from the user so that the application can find out the categories of users who want to enter the application
Successful Completion	Login Succes
Preconditon	Users cannot enter the application yet
Postcondition	Users can access all features according to their respective access rights

##### 2) User, Event and Dance Management Registration Use Case

Name	Registration
Actor	User, Dance Management, and Event Management
Description	User, Dance Management, and Event Management can register can register the user to get access rights and features desired and in accordance with the user's use
Successful Completion	Registration Succes
Preconditon	Users cannot acces the application yet
Postcondition	Users can access all features according to their respective access rights

3) User Dancer Rent Use Case

Name	Dancer Rent
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Actor	User
Description	Users can hire dancers by choosing a dancer, the dance they want, fill out the form provided and select a payment method
Succesful Completion	The user will get proof of payment and the user will be contacted by the dancer regarding the order details confirmation
Preconditon	The user is in the main menu and sees a list of dancers to choose from
Postcondition	The user gets proof of booking and will be contacted by the dancer

4) User Dance E-Ticket Use Case

Name	Dance E-Ticket
Actor	User
Description	Users can order dance tickets by selecting the desired dance event then pressing the "Buy Ticket" button then determine the ticket quantity, enter personal data, select the payment method and pay
Succesful Completion	Users get ticket booking details and get an E-Ticket which will be scanned by the dance event's barcode manager
Preconditon	Users are in the main menu and see a list of events to choose from
Postcondition	Users get order details and E-Ticket

5) Event Management Add E-Ticket Use Case

Name	Add E-Ticket
Actor	Event Management
Description	Event Management can make dance events
Succesful Completion	The user will get proof of payment and the user will be contacted by the dancer regarding the order details confirmation
Preconditon	The user is in the main menu and sees a list of dancers to choose from
Postcondition	The event has been created and the E-Ticket will appear in the Event List

6) Event Management E-Ticket QR Code Scanning Use Case

Name	E-Ticket QR Code Scanning
Actor	Event Management
Description	Event Management can scan QR codes on tickets obtained by the user when purchasing dance event tickets.

Succesful Completion	Scanning succesful
Preconditon	The user shows the QR Code on the E-Ticket and Event Management directs the camera to the QR Code on the E-Ticket
Postcondition	Successful scanning, details of the ticket order will appear which will be confirmed by Event Management

7) Dance Management Add Dance Rental and Attributes Use Case

Name	Add Dance Rent
Actor	Dance Management
Description	Dance Management can rent out traditional dance services and dance attributes and determine the rental price of the services being rented.
Succesful Completion	Dance Rent Added
Preconditon	Dance Management is in the main menu and opens my dance menu
Postcondition	The dance that has been added is ready to be rented by the user

8) User View Dance List Use Case

Name	View Dance List
Actor	User
Description	Dance Management can rent out traditional dance services and dance attributes and determine the rental price of the services being rented.
Succesful Completion	Dance Rent Added
Preconditon	Dance Management is in the main menu and opens my dance menu
Postcondition	The dance that has been added is ready to be rented by the user

9) User View Dance Ensiklopedia Detail Use Case

Name	Add Dance Rental and Attributes
Actor	Dance Management
Description	Dance Management dapat menyewakan jasa tari tradisional dan atribut-atribut tari serta menentukan harga sewa dari jasa yang disewakan.
Succesful Completion	Dance Rent Added
Preconditon	Dance Management is in the main menu and opens my dance menu
Postcondition	The dance that has been added is ready to be rented by the user

10) User View Traditional Dance Studio Detail Use Case

Name	Add Dance Rental and Attributes
Actor	Dance Management
Description	Dance Management dapat menyewakan jasa tari tradisional dan atribut-atribut tari serta menentukan harga sewa dari jasa yang disewakan.
Succesful Completion	Dance Rent Added
Preconditon	Dance Management berada di menu utama dan membuka menu tari saya
Postcondition	Tari yang telah ditambahkan sudah siap untuk di sewa ole user

2.2.2 Use Case Diagram

Use-case diagrams are UML diagram models that are used to describe the expected functional requirements of a system. Use-case diagrams emphasize "who" does "what" in a software system environment to be built.

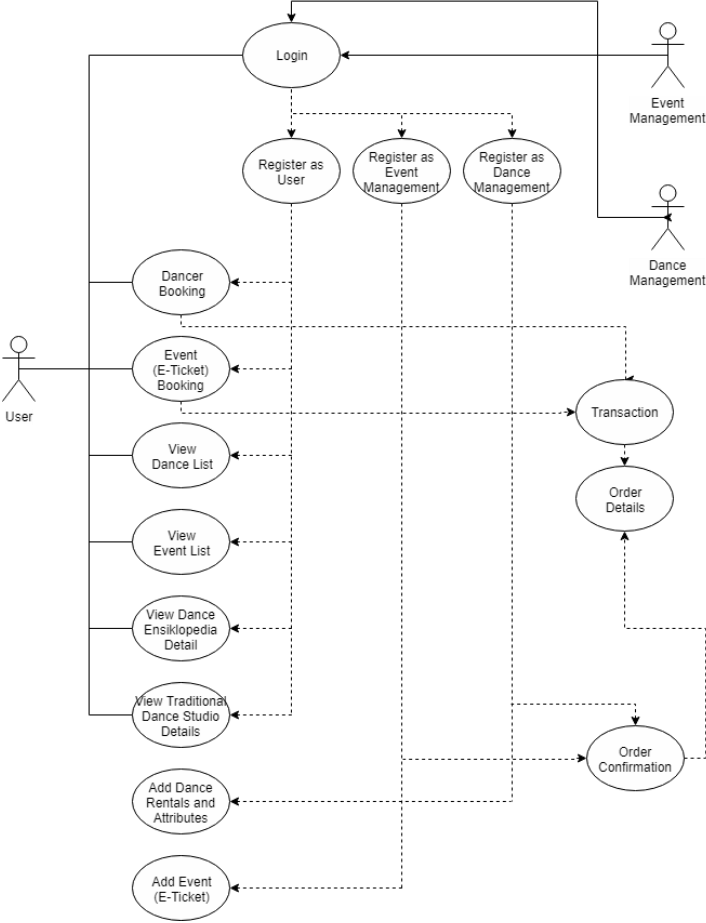


Figure 1. Use Case Diagram

From the Use Case diagram above it can be explained that the User, Event Management, and Dance Management are part of the user, where the user can do several things to the system, namely :

1. Login, the user can log in if the user has already registered in the system
2. Registration, the user can register first before logging in
3. Dance Booking, users can register the services of dancers and dances that you want to rent.
4. Event (E-Ticket Booking), users can register the event you want to create or in the title.
5. View Dance List, users can see the dance list created by Event Management
6. View Event List, users can purchase tickets for events based on tickets to enter, or book a place in events based on free to the public (free entry)
7. View Dance Encyclopedia Details, users can see the dance details in the dance Encyclopedia
8. View Traditional Dance Studio Details, users can see the details of Traditional Dance Studio
9. Add Dance Rentals and Attributes, Dance Management can add dances and dance attributes that are rented

## 2.2 Prototyping Method

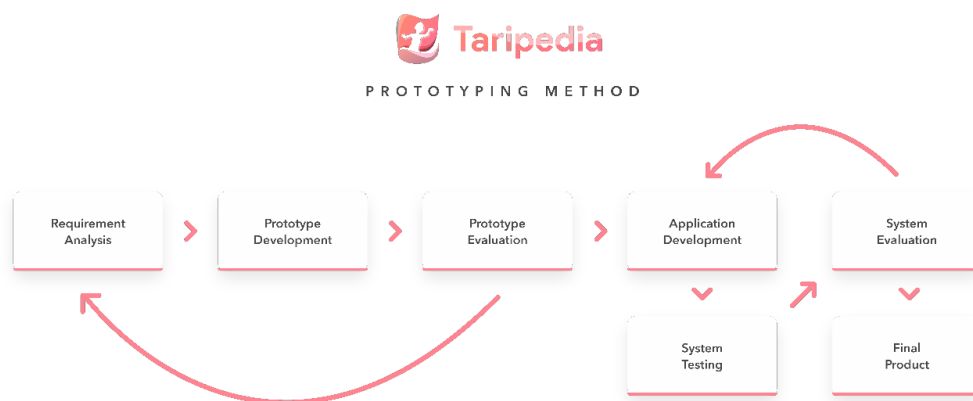


Figure 2. Prototyping Method Diagram

### 2.2.1 Requirement Analysis

The developer defines the format of the software / software, identifying the needs and the system created.

### 2.2.2 Prototype Development

Build prototyping by making temporary designs that focus on serving the user (for example creating input and output formats).

### 2.2.3 Prototype Evaluation

This stage is carried out by the user, whether the prototyping made / built, is in accordance with the wishes and needs of the user. If it is not appropriate, prototyping will be revised by repeating the previous steps. But if it is suitable, then the next step will be implemented.

### 2.2.4 Application Development

At this stage the agreed prototyping is translated into the appropriate programming language.

### 2.2.5 System Testing

After the system has become a software that is ready to use, the software must be tested before being used. This aims to minimize software errors. Testing is done by Black Box, White Box, Architecture testing, Base path and others.

### 2.2.6 System Evaluation

At this stage the user evaluates the system that has been created as desired. If not, then the developer will repeat steps to 2.2.4 and 2.2.5. But if so, step 2.2.7 will be taken.

### 2.2.7 Final Product

Software that has been tested and accepted for use is ready for use.

## 3. Result and Discussion

This section contains the result and discussion of the research and can be presented as description, charts or figures.

### 3.1. Program Implementation

After the design process is carried out periodically, then the program implementation is carried out on the design that has been made into a mobile-based application that is built with the Swift and Java programming languages.

#### 3.1.1 User Interface

##### 1) Registration dan Login Page

On the registration page, users can create an account in accordance with the permissions desired by the user. Users can choose to be Users, Event Managers and Dancers. After creating an account, users can log in using the Email and Password that has been previously registered

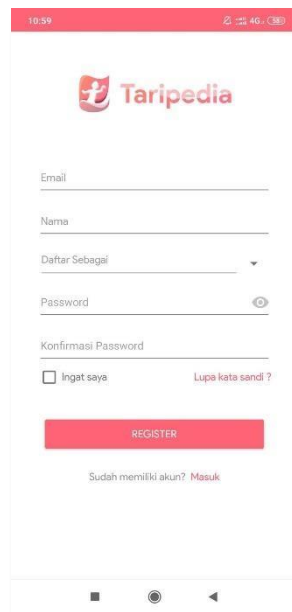


Figure 3. Register Page

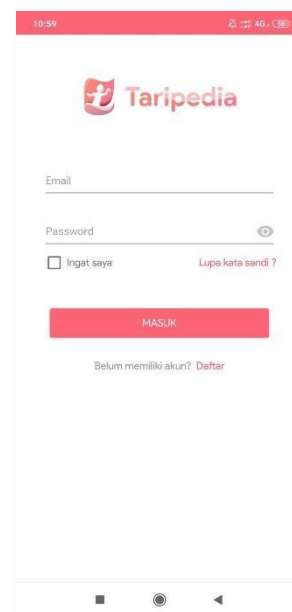


Figure 4. Login Page



## 2) Home Page

On the home page, users can access all the features possessed by TariPedia, such as Event, Dance, Studio, Tutorial, Rental and Transaction. In addition, on the Home Page there are highlights events that will be held in the near future

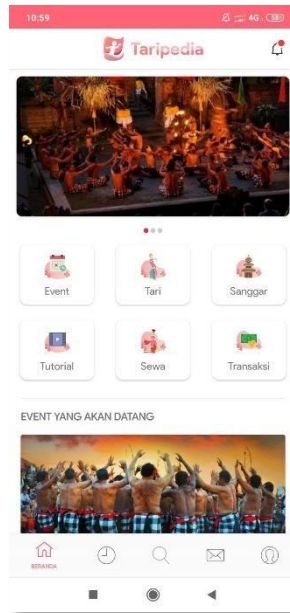


Figure 5. Home Page

## 3) Event Page

On the Event List Page, displays the events uploaded by Event Management. There are 2 types of events, namely Paid Events and Unpaid Events



Figure 6. Event List Page

4) E-Ticket Transaction Page

When a user wants to make a Paid Event Booking, the user will be directed to the Transaction page. On this page the user is required to fill 4 steps, and fill in every form provided

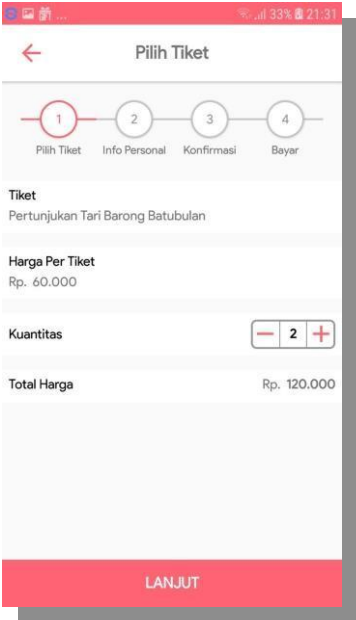


Figure 7. E-Ticket – Choose Ticket

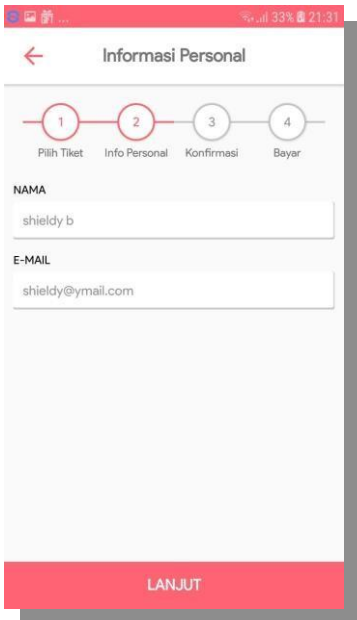


Figure 8. E-Ticket – Personal Information

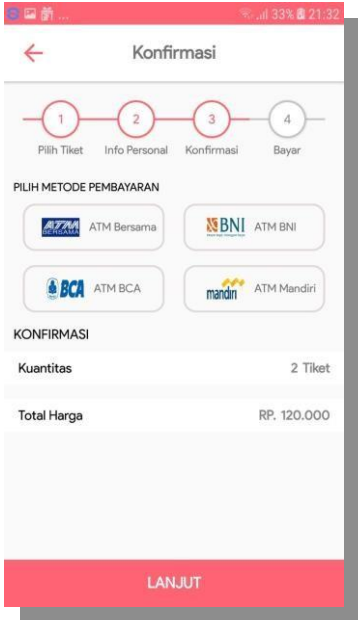


Figure 9. E-Ticket - Confirmation

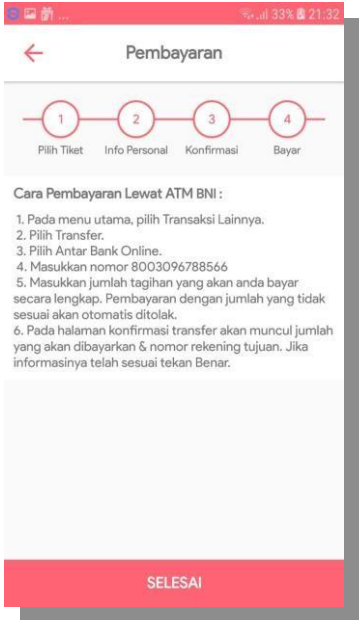


Figure 10. E-Ticket - Pay

### 5) E-Ticket QR Code Scanning



Figure 11. QR Code - Camera Open

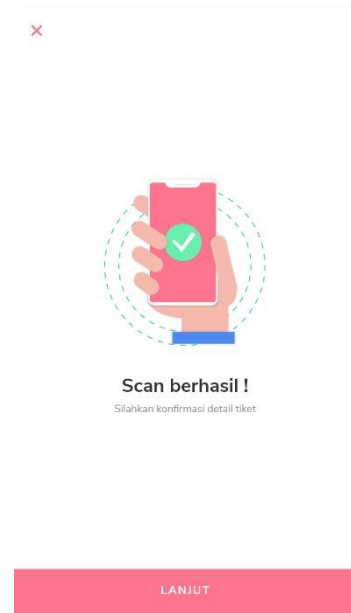


Figure 12. QR Code – Scan Succes



Figure 13. QR Code – Ticket Details

### 3.2. Program Testing

#### 3.2.1 Register Page

Input Data	Expected	Observation	Conclusions
Email, Name, User Category, Password	The system will direct the user to the Users / Event Management and Dancer main pages	Displays the main page / homepage	Confirmed

#### 3.2.1 Login Page

Input Data	Expected	Observation	Conclusions
Email, Password	The system will direct the user to the main page	The system directs the user to the main page	Confirmed

#### 3.2.1 Event List Page

Input Data	Expected	Observation	Conclusions
Click the "Event" button	The system will display a list of Events that have been created by Event Management	The event list will appear on the event list page	Confirmed

#### 3.2.1 QR Code Scanning

Input Data	Expected	Observation	Conclusions
JPEG Picture	QR Code will be scanned and details will appear from the customer	Ticket reservation details appear	Confirmed

#### 3.2.1 Transaction Page

Input Data	Expected	Observation	Conclusions
E-Ticket Quantity, User Name, E-Mail, Payment Method	Transaction Details, E-Ticket	Transaction Details, E-Ticket	Confirmed

#### 4. Conclusion

Based on the results of the activities carried out, as for the conclusions that can be obtained is, TariPedia system is a mobile-based application that is engaged in the rental of traditional dancers and purchase of dance event tickets. The linkage between 1 feature and the other features has been proven in the system testing process which involves 6 main features that are connected so that they are able to project transactions online and display event organizers by category.

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