'Event Tracker' iOS app for managing and reminding about events

iOS application development (CSE 4083)

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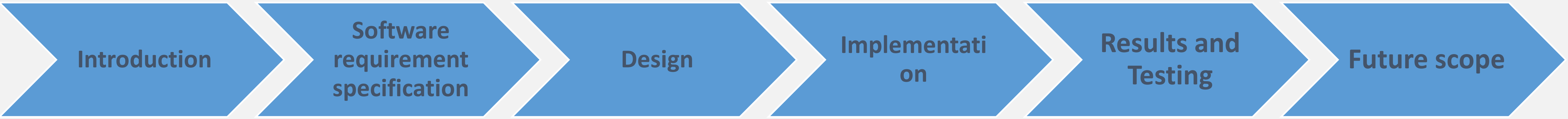


Introduction

- Background
- Motivation
- Existing work

Software requirement specification

- Problem statement
- User stories

Design

- Design principles
- GUI Design
- Software classes
- Navigation method

Implementation

- Coding standards
- iOS framework
- Dependencies
- System requirements

Results and Testing

- Results
- GUI testing
- Feature testing

Future scope

First presentation

Final presentation

Deliverable

Introduction

- The impact of hectic lifestyles on remembering and celebrating events thoughtfully is **challenging**.
- The **aim** of the project is to create an intuitive and user-friendly Event-Planner iOS application that simplifies the process of planning and coordinating events, encouraging meaningful and well-organized celebrations
- The **proposed methodology** encompasses employing the Model-View-Controller pattern, adhering to software engineering principles, with rigorous testing to efficiently manage and celebrate events.
- The **value proposition** is that our app provides a seamless and user-friendly solution to effortlessly manage events, ensuring timely reminders and personalized planning.
- **Expected outcome** is a user-friendly Event-Planner iOS application, adept at addressing the challenges of efficient event organization, thus enhancing personal connections.
- The work is **aligned** to enhancing the joy of event celebrations.

Software requirements specification

Problem statement

- Busy lifestyles
- Inadequate planning
- Forgetting special occasions
- Impact on relationships
- Creating memorable moments

User stories

As a user,
- I want to be able to add and save upcoming events so that I can keep track of important dates.
- I want to receive timely reminders for upcoming events so that I don't forget to plan and celebrate.
- I want the option to create and manage a to-do list for each event celebration to ensure a well-planned event.
- I want to view a calendar that highlights upcoming events to help me plan my schedule.

Design

- **Design principles**
  - User Centric design
  - Simplicity
  - Observer Design Pattern(Notifications)

- **GUI Design**
  - Native iOS app theme.
  - DatePicker, TextFields, PickerView Widgets.

- **Software classes**
  - UserNotifications class
  - AppDelegate class for managing persistent context.
  - View Controller classes – AddBirthdayViewController, BirthdaysTableViewController.

- **Navigation method**
  - Navigation Controller

Implementation strategy

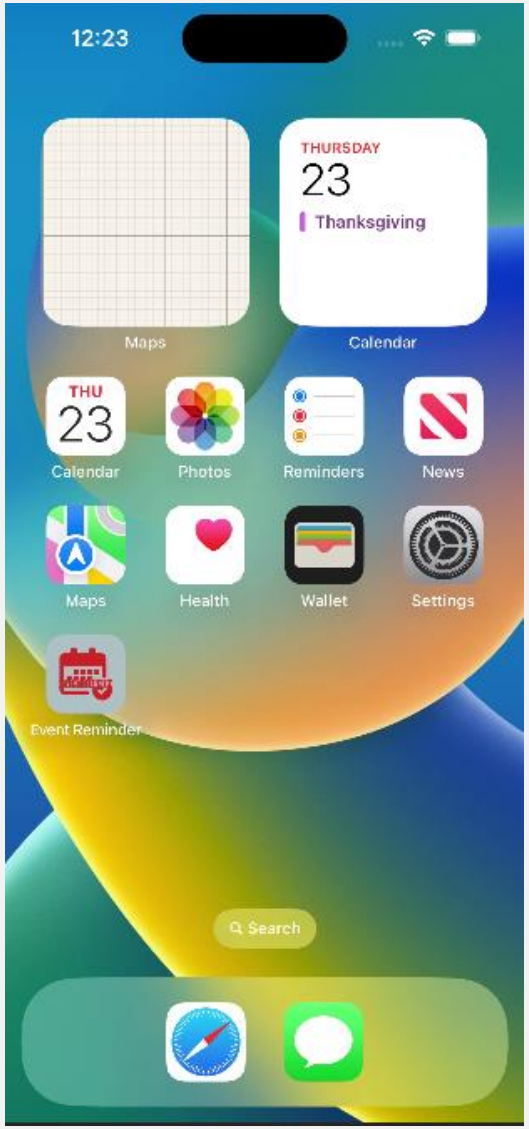
- **Coding standards**
  - Conforms to Swift Style guide.
  - Camel casing.
  - No semicolons.

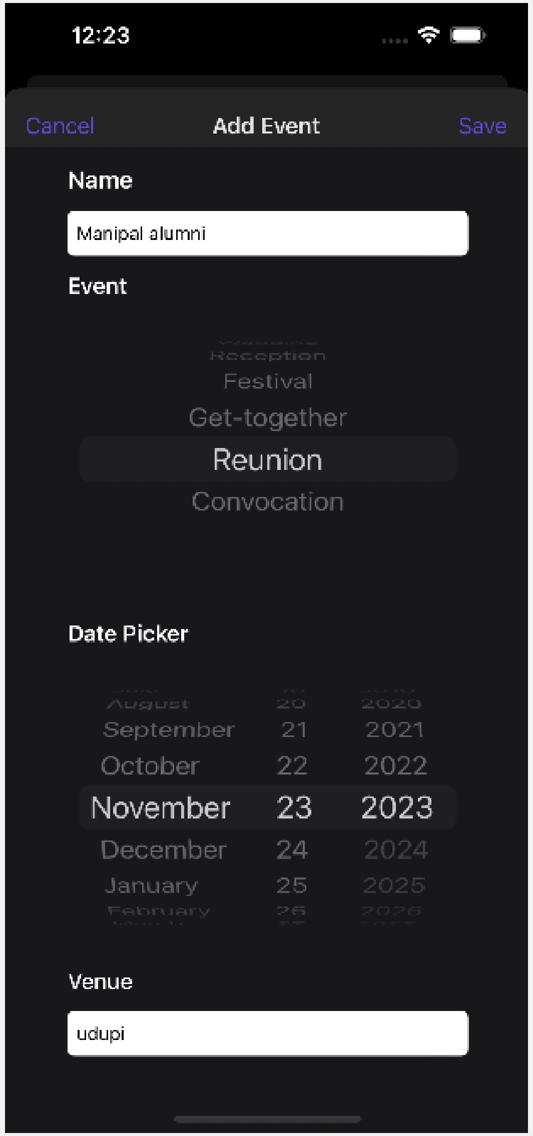
- **Dependencies.**
  - Fully Native application, no external dependencies, apart from Xcode 14 and having an Apple device.

- **Software engineering principles followed**
  - SDLC flowchart followed.
  - Feasibility Study → Design → Code → Testing → Deployment
  - Abstraction, Encapsulation.
  - DRY – Don’t Repeat Yourself principle.

- **System requirements**
  - Apple MacBook or desktop computer with 8 GB RAM and 200GB hard disk with a high-resolution display for app development and iOS mobile device for app deployment.

Results

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Cancel Add Event Save

Name

Manipal alumni

Event

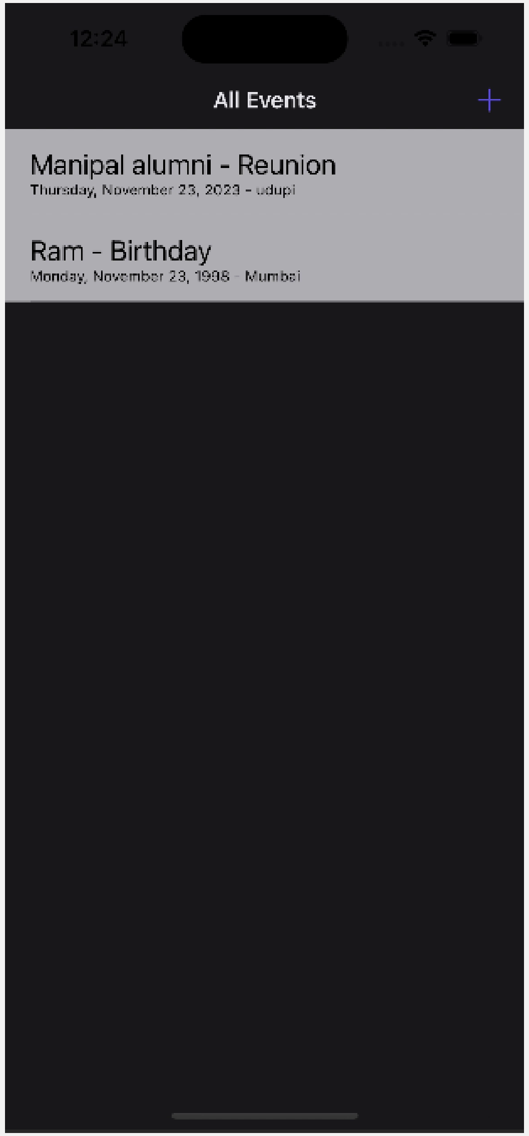
Reunion

Date Picker

November 23 2023

Venue

udupi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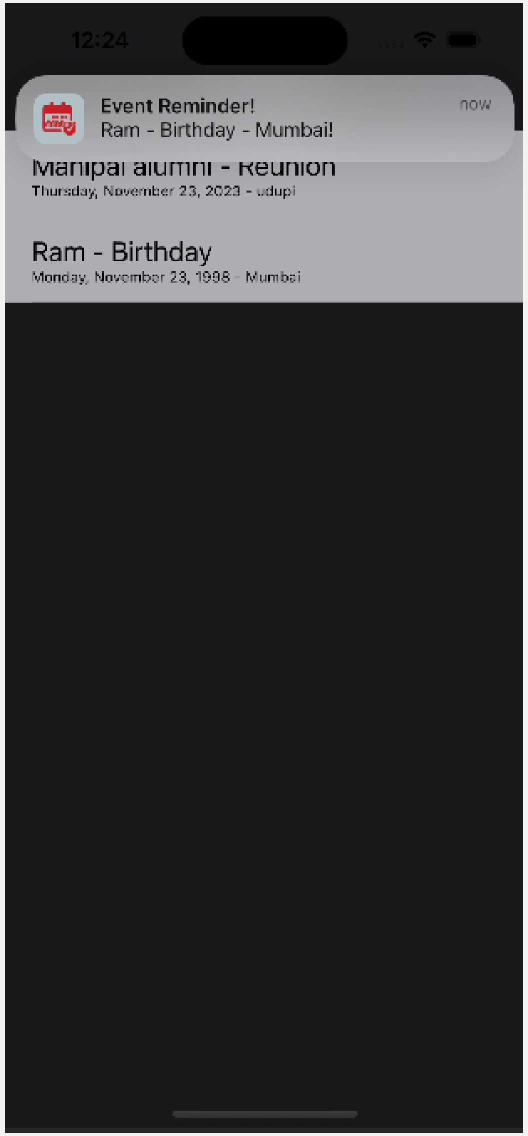
All Events +

Manipal alumni - Reunion
Thursday, November 23, 2023 - udupi

Ram - Birthday
Monday, November 23, 1998 - Mumbai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Event Reminder! now
Ram - Birthday - Mumbai!

Manipal alumni - Reunion
Thursday, November 23, 2023 - udupi

Ram - Birthday
Monday, November 23, 1998 - Mumbai

Testing

- **GUI testing**
  - Checking constraints:
    - Whether works on all screen sizes.
    - Making sure there’s no skew or glitches.
  - Whether proper CTA (Call to Action) buttons have been enforced.

- **Features testing:**
  - Whether logic works as intended.
  - Edge cases and boundary values taken into consideration
    - No Name
    - No Venue
  - Whether data is persistent across multiple sessions.
  - Whether notifications are triggered correctly and at the right time.

Dissemination

To the scientific community: To facilitate remembering the events, not just applicable to the scientific community but to everyone across the globe, the scope is massive.

Publicizing: By using the MAHE innovation center and the Ministry of Education's help, we can make this project widespread, by adding many other features in the long run.

Target community audience: Everyone in the world can use our app, there is no restriction whatsoever, just an iPhone is needed.

IP (Intellectual Property): Our project has been implemented from scratch and using native iOS libraries. We have not applied for any license however we do plan on making part of our app open-source.

Commercialization: We can use a freemium model, where only some features are available for free, for accessing all features, the user must pay a small fee.

TRL(Technology Readiness Level) achieved: Level 7: System prototype demonstration in a space environment.

Conclusion and future scope

- Scheduling meets during these events, an end-to-end system for managing all aspects of events, for example, number of people attending, available caterers, etc.
- Connecting to Firebase for push notifications.
- Migrating to a database instead of using persistent context. A No-SQL database works best.
- Adding proper versioning to the app.
- Streamlining development workflow, using CI/CD techniques.
- Improving the UI.

From simple wishes to celebrations grand,
spread happiness across the land.

References

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- Swift documentation: https://developer.apple.com/documentation/swift