Smart People.
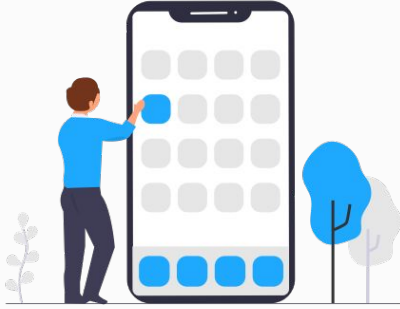# Smart Software.

Company Profile

Fcode Labs

Sri Lanka 🇱🇰
Fcode Labs PVT LTD,
No 7/B/2, Church Road, Piliyandala 10400, Sri Lanka.

Singapore 🇸🇬
Fcode Labs Pte Ltd.
BLK 108, Pasir Ris Street 12, #04-79 Singapore, 510108.

Web & Mobile Application Engineering

What you need can be a **minimum viable product** or a sophisticated app with millions of users. We have experience in developing applications on **healthcare, apparel, education, hospitality, urban development, lifestyle** and many more.
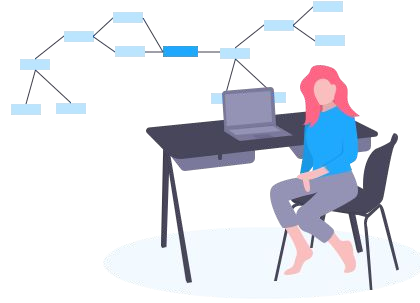
Digital Transformations

Your organization may require an end-to-end solution to **transform every function & process: Operations, Finance, Marketing and streamlining workforces** Let us digitize your workspace

Machine Learning & Artificial Intelligence

Get a touch of artificial intelligence to your company, your sales data, and user data. You will be surprised to see the results and the innovations you can generate to boost your KPIs.

Operating Locations

Singapore
Business Development Center
Manage International projects & collaborations

Colombo
Software Research & Development Center
Development team working on your product.

Our Operating Models

Project Outsourcing

You can share the requirements in details first and then relax. We will completely manage the project internally and deliver awesome results based on the agreed timelines.

➔ This is ideal when you are clear about the requirements in the beginning or if you need to build a MVP for your business.

Dedicated Developers

We can assign you one or more developers full-time or part-time to work in your product or work with your existing tech team.

➔ Ideal when you have a development team internally and having lack of capacity.
➔ You can take your own pace.
➔ Fcode Labs manage all the recruitment, training retention and the developer quality.

Our Expertise

Digital Transformation Solutions

We know that intelligent automation must be a part of your organization's overall strategic, well-funded digital transformation initiative. We have the right skills to digitally transform your corporate functions.

- ➔ Smart Staffing.
- ➔ Intelligent task allocations & monitoring.
- ➔ Payrolls and Finance.
- ➔ 3rd party integrations.
- ➔ ERP (Enterprise Resource Planning)
- ➔ CRM (Customer Relations Management)
- ➔ KPI Analysis and interactive dashboards.

Relevant Experience

ALT+IT, Transform the complete workflow in MAS Holdings (PVT) LTD, the largest apparel company Sri Lanka. **Read More**

Live from Oct 2019

MAS
CHANGE IS COURAGE

Workforce Management Suite, Transform the complete workflow in David Pieris Group, one of the largest conglomerates in Sri Lanka. **Read More**

DPMC   David Pieris Group of Companies   ASSETLINE

Live from Nov 2020

Our Expertise

Healthcare Transformation Solutions

Trusted by **Ministry of Health, Singapore** &

University of Auckland

Our technology is designed with clinicians and care providers in mind and is focused on making access to patient records as easy as possible.

- ➔ Electronic Health Records.
- ➔ Sensor integrations.
- ➔ Video consultations and clinics.
- ➔ Remote monitoring & diagnosis.
- ➔ Compliance and Data Security (HIPAA, HISO)

Relevant Experience

Maia, End to End web and mobile System to automate a complete workflow for Psychiatrists in New Zealand with University of Auckland & Maia Limited. **Read More**

Beta from April 2020

iLogCancer, End to End web and mobile System to automate a complete workflow for Oncologists on Norway with iLogCancer Limited. **Read More**

Under Development

MindLine, Front end development for MindLine by **Ministry of Health, Singapore**. **Read More**

Live from Oct 2020

Our Expertise

Web & Mobile App Engineering

We understand that a premium quality software product is a combination of relationship and great engineering. We provide all the solutions you need to cater your specific requirement.

➔ UI/UX Design
➔ Wireframe Design.
➔ Software Architecture.
➔ Software Development
➔ Clear Documentation.
➔ After sales support & maintenance.

Relevant Experience

SayHello app, Novel Platform to learn English. From SayHello (PVT) LTD, Sri Lanka. **Read More**

Live from March 2020

Social Motion, web and mobile system to **promote exercises** by Social Motion Inc, Canada. **Read More**

Live from March 2019

SOCIALMOTION

Flingo app, our own app where you can draw, create GIFs and chat with your contacts. **Read More**

Live from April 2020

flingo

iStay, our own platform where hospitality sector can upsell their services. **Read More**

Live from April 2019

iStay

Product Quality

Quality is our KPI. We take strong steps to ensure the product meets outstanding customer experience from the very beginning.

We strongly follow lean development practises and Agile methodologies.

We incorporate both manual and automated testing using a sophisticated set of tools and technologies, latest testing processes and methods led by highly skilled engineers.

Transparency & Trust

'Promise less and Deliver More'

We believe that a world-class product is born on strong partnership.

We update our clients and all stakeholders frequently to meet and go beyond their expectations.

We use :
▫ Trello or JIRA (For Project Management)
▫ Slack (For Communication)

Compliance & Security

We care about our users and comply leading international standards accordingly.

We comply:
▫ CCPA (California Consumer Privacy Act) ▫ WCAG 2.0 (Web Content Accessibility Guidelines)
▫ HIPAA (Health Insurance Portability and Accountability Act)
▫ GDPR (General Data Protection Regulation)
▫ HISO (Health Information governance guidelines, New Zealand)

In addition, we follow all the standard security protocols and keep the systems updated with latest tools.

Founding Team

Buddhishan Manamperi
Managing Director
**BSc. (Hons) Eng. (University of Moratuwa),
Adv. Dip in MA, CIMA, UK., AMIE (SL)
MSc (Reading)**
Batch Top – Faculty of Engineering, UoM

Previous Experience : Software Engineer, oDoc (PVT) LTD

Tharindu Malawaraarachchi
Director, Head of Operations
**BSc. (Hons) Eng. (First Class)
(University of Moratuwa),
Adv. Dip in MA, CIMA, UK., AMIE (SL)**
Island Rank 2 - GCE(A/L) -2012

Previous Experience : Software Engineer, WSO2 (PVT) LTD (Fintech solutions for banks in UK & India)

Ramesh Rathnayake
Director, Head of Engineering
**BSc. (Hons) Eng.
(University of Moratuwa), AMIE (SL)**
Best Inventor of the Island (Sahasak Nimawum)

Previous Experience : Electronic Engineer, Zone24x7 (PVT) LTD (Machine Learning Department serving Fortune 500 Companies)

Extended Management Team

Shehan Nilaweera

Head of Customer Relations, Singapore

Senior First Officer at Singapore Airlines
MSc, Coventry University
Temasek Polytechnic

Previous Experience : Associate Engineer, Singtel, Singapore.

Ishan Karunanayake

Head of International Relations

PhD Candidate, University of New South Wales, Australia
BSc. (Hons) Eng. (First Class, University of Moratuwa)

Previous Experience : Software Engineer, CodeGen International PVT LTD

Our
Strength

Backend Technologies

TypeScript · aws · mongoDB · node.js · Google Cloud Platform · MySQL · Docker
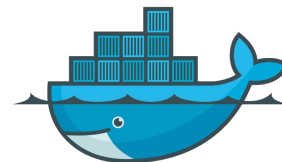
Front-end Technologies

React · Dart · Flutter

Deployment Platforms

Android · iOS · Mac OS · Windows · Linux

Electronic Design and 3D Modeling

AI and Machine Learning

Our work

MindLine

Anxiety/Depression support tool for mental health patients by **Ministry of Health, Singapore**

mindline.sg provides tools, tips and resources that can help you manage health and wellbeing.

Features
▫ HIPAA, HISO Compliance
▫ ChatBot integration
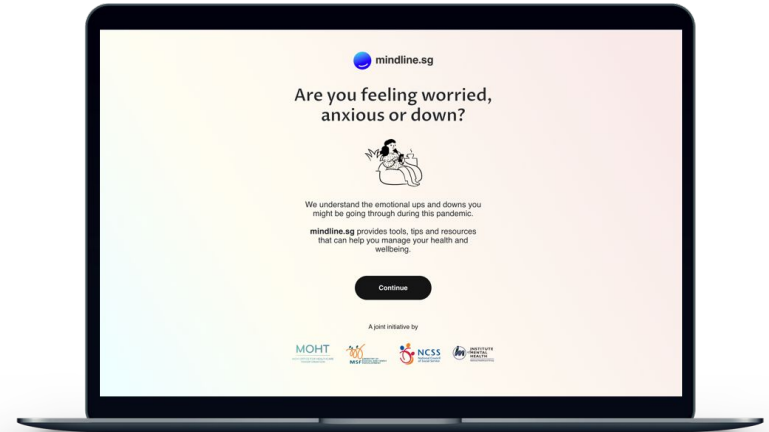
MOHT
MOH OFFICE FOR HEALTHCARE TRANSFORMATION

Maia

Live from May 2020

Patient management system for psychiatrists by University of Auckland & Maia Limited, New Zealand

Maia is a comprehensive system that helps psychiatrists to get closer and help patients, keep track of the prescriptions and gather and use medical data complying to the regulations.

Features
▫ Real-time Patient Management
▫ Video Consultations
▫ Scheduling and Appointment Management
▫ Task Management
▫ HIPAA, HISO Compliance

Awards
▫ **Silver Award - Best design awards, New Zealand 2020 for user experience**
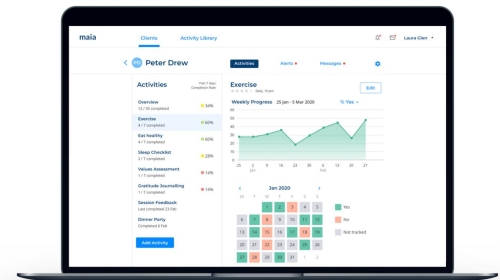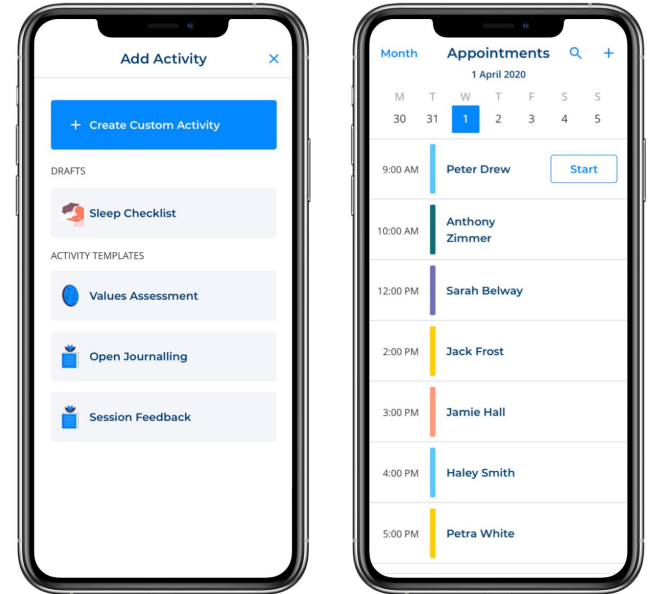
Alt+it

Process automation software revolutionizing the apparel industry with MAS Holdings (PVT) LTD

The purpose of the system is to digitise every single function and then automate all the processes of the company making everyday workflows seamlessly managed and integrated to improve the efficiency and effectiveness of the Sri Lanka's largest apparel company.

Features

▫ Realtime Process Management

▫ Smart Staffing

▫ Scheduling and Event Management

▫ Email and communication management

▫ Push Notifications.

▫ Reporting and Data Analytics.

Visit Product Page

MAS
CHANGE IS COURAGE
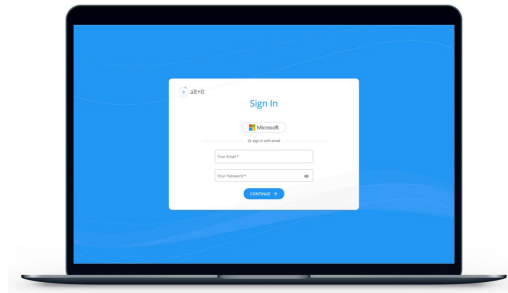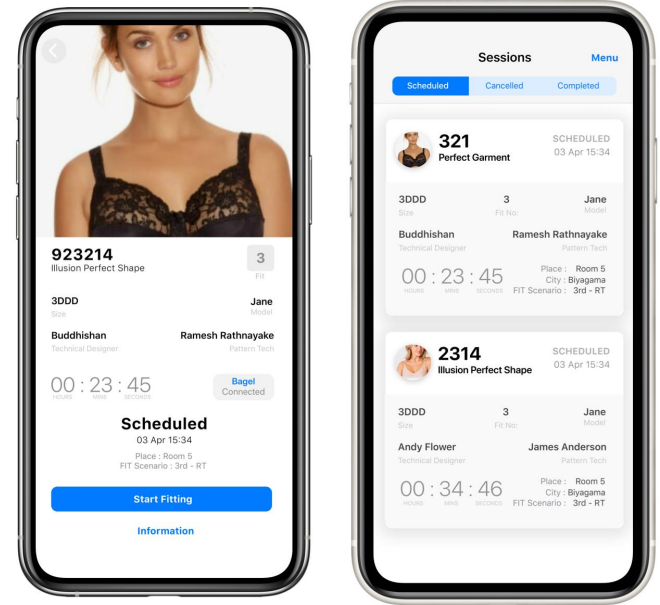
Digital Transformation for David Pieris Group

Live from Nov 2020

FWMS, focusses on automating all the tasks and operations across the David Pieris Group across their automobile companies & insurance companies

ASSETLINE

DPMC

David Pieris
Group of Companies

9:41

David Pieris
Group of Companies

Field Workforce Management Software

Email or ID

Password

Login

Login using Microsoft

POWERED BY **DP**
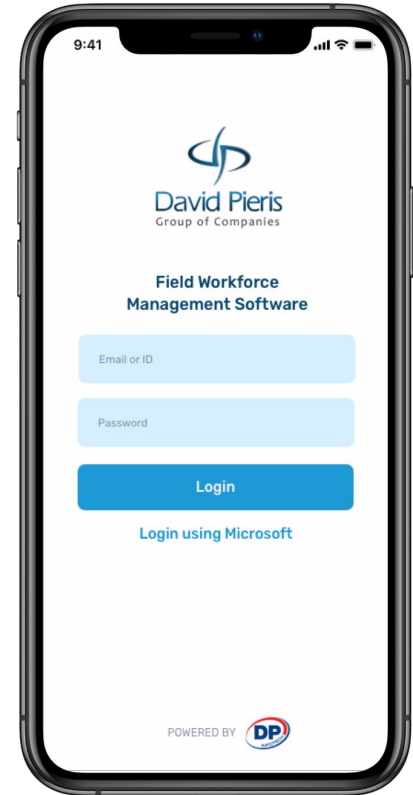
Flingo

Draw, Chat & Share App by Fcode Labs.

Flingo is the secure and awesome way of coloring what you have in the mind to chat with your friends. Live, Animated! Be Social!

Gif Maker function allows you to convert your sketch, art, paint, drawing into a cool animation instantly. What's more, you can draw your own Emoji.

Features
▫ Intuitive interface to sketch
▫ Instant GIF creating from Drawing
▫ Image & Text messages
▫ Group Chats

Visit Product Page

Download App

flingo
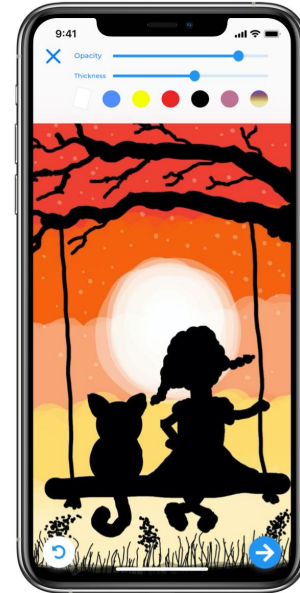
iLogCancer

Novel app to treat and manage Prostate Cancer by iLogCancer Limited, Norway

Under development

Minprostata (iLogCancer) is a comprehensive system that helps oncologists to get closer and help patients, keep track of the prescriptions and gather and use medical data complying to the regulations.

Features

▫ Patient Management
▫ Remote treatments
▫ HIPAA, HISO Compliance

minprostata
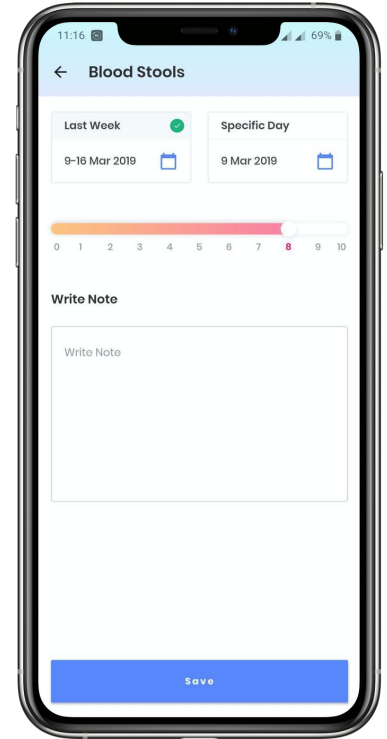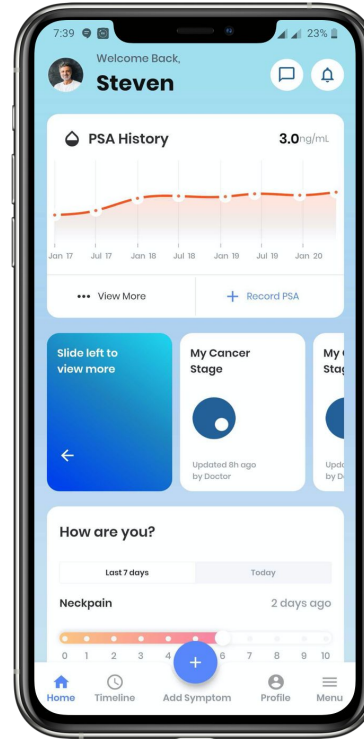
eCouncil

Waste Management App with University of Colombo, Dehiwala - Mount Lavinia Municipal Council & Boralesgamuwa Urban Council

Waste App is the novel way to manage all the public waste collections done by the state councils in Sri Lanka. Public app will notify and track all the garbage disposed and the collector app tracks all the key information.

Features

▫ Real-time Location Tracking

▫ Waste Management

▫ Waste collector task assignment & tracking

▫ Data Analytics
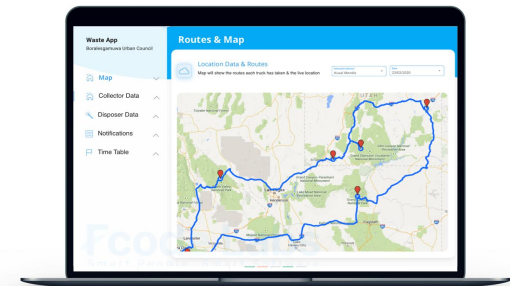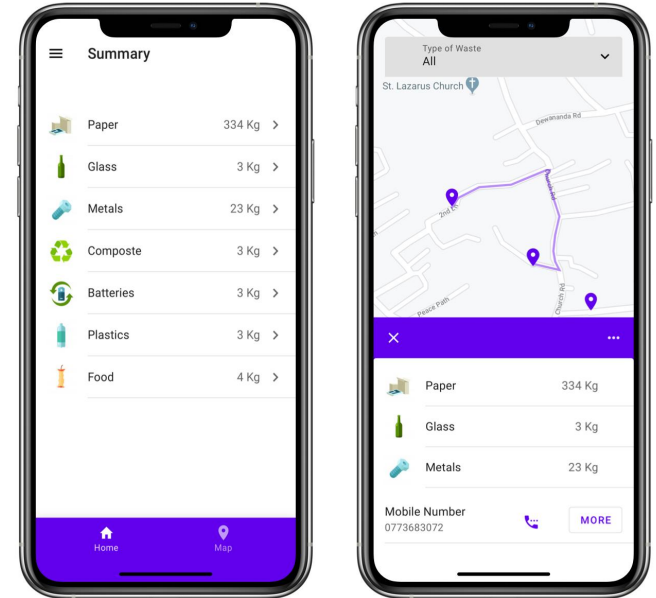
Sprout

Workflow automation system revolutionizing the early education

The purpose of the system is to digitise every single aspect of the process associated with the early education industry thereby give everybody involved a fantastic user experience and reduce the overhead of time wasted in documentation to comply with the regulations.

Features

▫ Child Enrolment

▫ Staff Management

▫ Real-time checklist management

▫ Task Management

▫ Scheduling and Push notifications.

▫ Reminders

▫ Email and communication management.

▫ Payments

datasprig
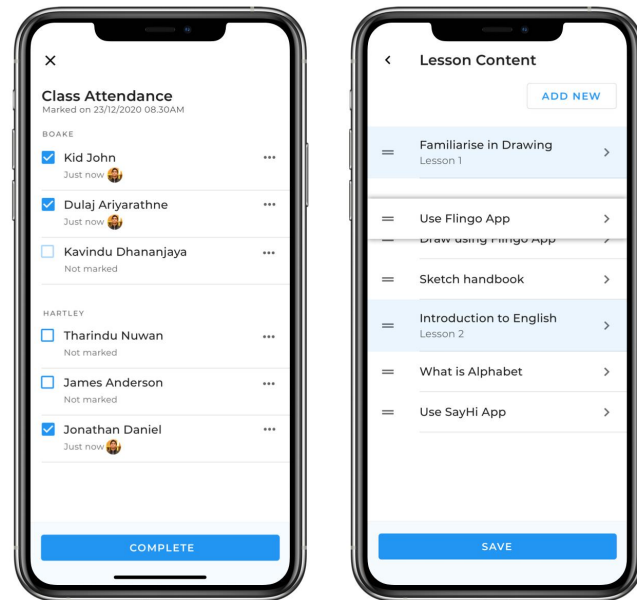
UpSilent

Novel app to treat Tinnitus (Hearing Impairment) by University of Auckland, New Zealand

UpSilent uses patented technology to treat patients with Tinnitus, which is a common hearing perception of noise or ringing in the ears.

Features

▫ Patient Management
▫ Remote treatments
▫ HIPAA, HISO Compliance

THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
N E W Z E A L A N D
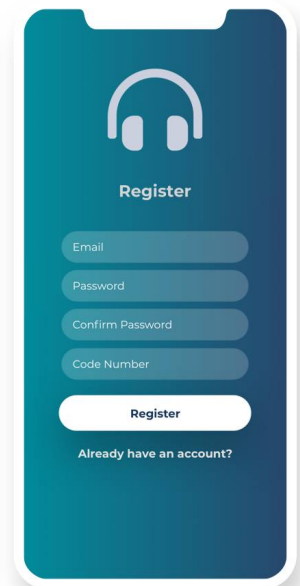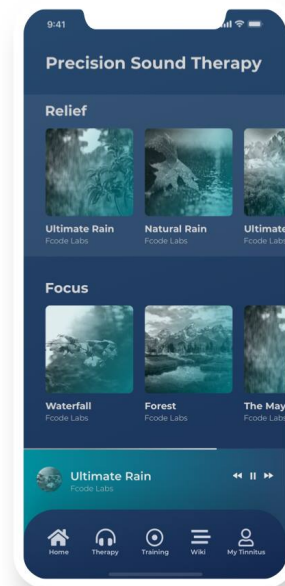
Social Motion

Promoting fitness among Community by Social Motion Inc, Canada

The app connects with the user's step and activity data to provide attractive incentives to contribute to the society.
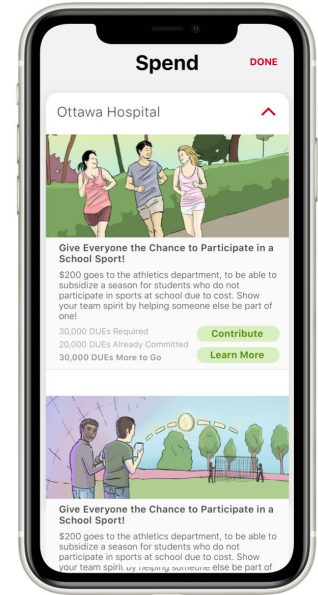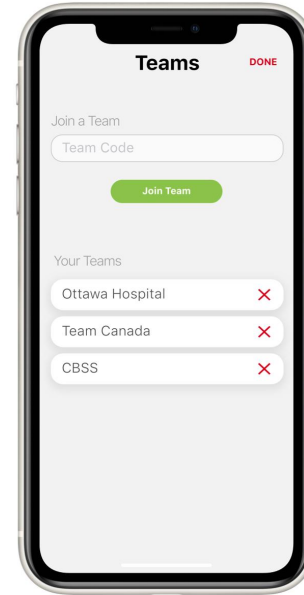
Features

▫ Apple HealthKit, Google Fit & FitBit integrations
▫ Sensor integrations.
▫ Fitness data analytics.

iOS App.

Android App.

Live from March 2019

SOCIAL**MOTION**

SayHello

English Language training platform by SayHello (PVT) LTD, Sri Lanka
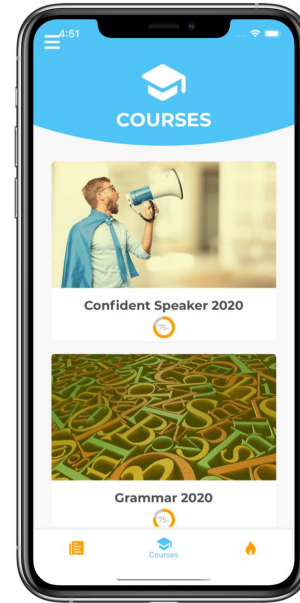
The purpose of the system is to provide intuitive and smooth user experience to everyday users who wants to learn English easily.

Features

▫ Content Management

▫ Course & Submission Management

▫ Engagement Management

▫ Teacher evaluations

▫ Package Activations.

\

Visit Product Page

Path to Nibbana

Buddhist meditation app for the community

Path to Nibbana App offers completely free content, where you can listen to the meditation sessions conducted by Mr. Kithsiri Samarasinghe, Senior Lecturer, University of Moratuwa, Sri Lanka which are based on the Tripitaka.
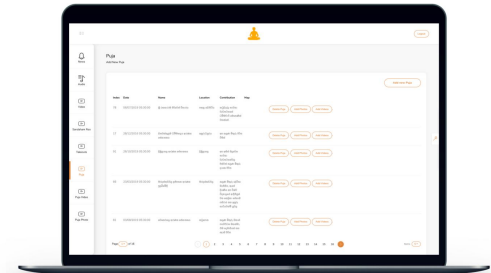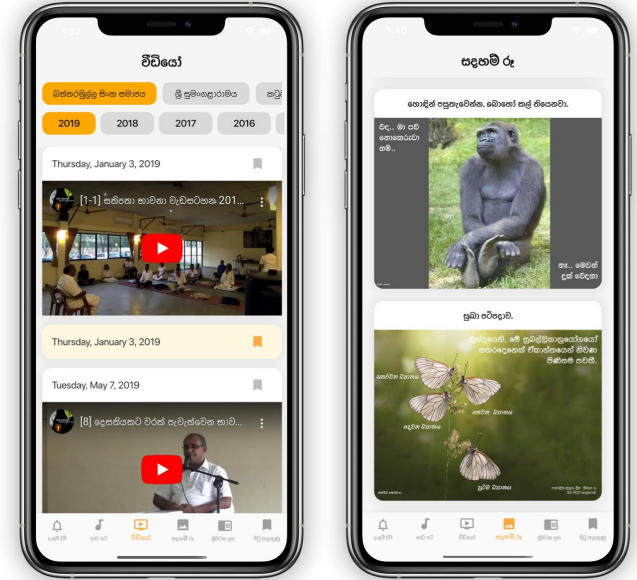
Features

▫ Audio & Video Sessions

▫ Bookmarking

▫ Notification Management

Live from Dec 2019

Download on App Store.

Download on Google Play Store.

iStay

Digital hospitality Solution by Fcode Labs.

It is the modern way of showcasing the hotel services while giving a seamless experience to the guest to interact with the hotel staff and reception. Management web portal is used to add the details, images and latest information about the hotel services.
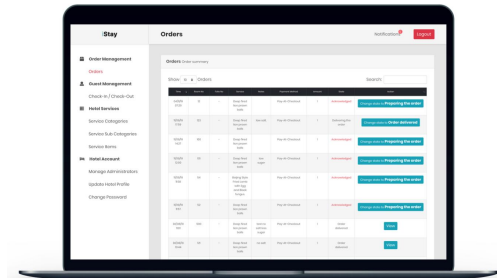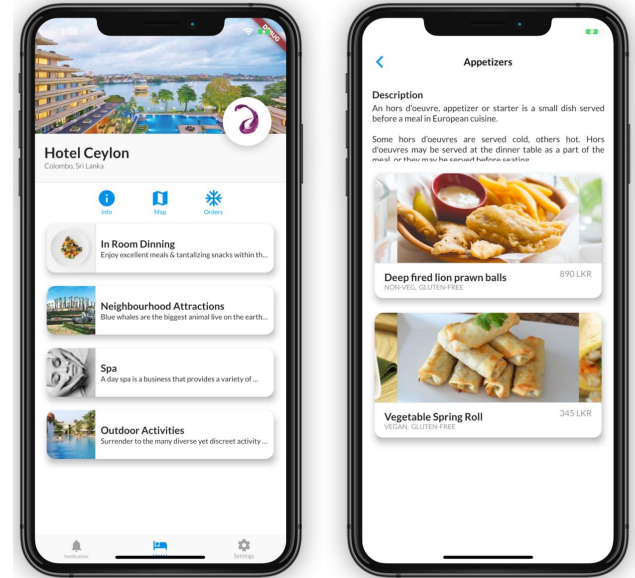
Features

▫ Realtime Order Management
▫ Guest Checking handling

Awards & Recognition :

▫ JohnKeelsX pre-accelerator program
▫ Winners - eSwabhimani 2019 (Tourism & culture) by ICTA, Sri Lanka.

Download on : **App Store**   or   **Google Play Store**
More info on   : **www.istayapp.com**

AI & Machine Learning Department

Fcode Labs

AI Team Leads

Naveen Karunanayake

ML Engineer

BSc. (Hons) Eng. (First Class)
(University of Moratuwa),
Former Research Intern at CSIRO's Data61, Sydney
District Rank 1 - GCE(A/L) - 2014

Achintha Wijesinghe

ML Engineer

BSc. (Hons) Eng. (First Class)
(University of Moratuwa),
Former Research Intern at CSIRO's Data61, Sydney

ℓcode Labs

Autonomous Carrom Robot

The project is a realization of an automated smart carrom-playing robot which continuously analyses the board configuration using a vision feed and image processing and plays a series of best possible shots to complete a game. This leverages the knowledge of reinforcement learning in implementing a strategic gameplay.
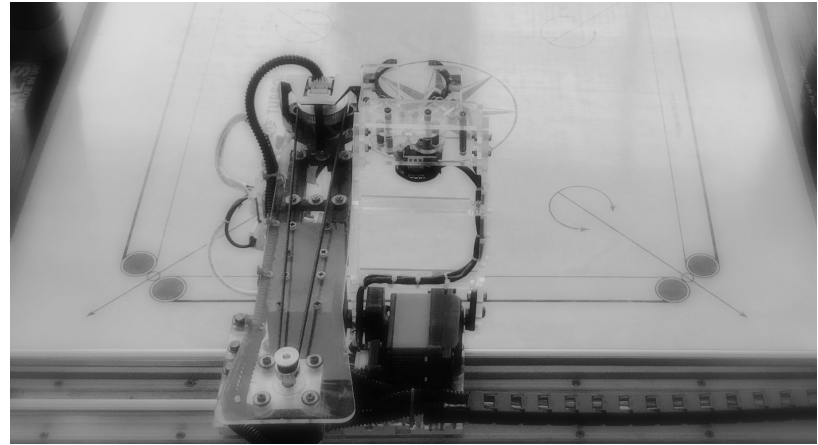
Based on,

▫ "Towards a Smart Opponent for Board Games: Learning beyond Simulations," in Proceedings of IEEE International Conference on Systems, Man, and Cybernetics, Toronto, Canada (virtual), 2020

Awards

▫ Runners Up – IEEE IAS Robotics Demonstration contest 2020 (Michigan USA)

-Research by Naveen Karunanayake and Achintha Wijesinghe

A Multi-modal Neural Embeddings Approach for Detecting Mobile Counterfeit Apps

Publications

▫ [JOURNAL] "A Multi-modal Neural Embeddings Approach for Detecting Mobile Counterfeit Apps: A Case Study on Google Play Store," in IEEE Transactions on Mobile Computing, doi: 10.1109/TMC.2020.3007260

▫ A Multi-modal Neural Embeddings Approach for Detecting Mobile Counterfeit Apps. In Proceedings of the 2019 World Wide Web Conference (WWW '19), May 13–17, 2019, San Francisco, CA, USA. ACM, New York, NY, USA..

-Research by Naveen Karunanayake

Flow Sampling for Deep Content Analysis

Publications

▫ SETA: Scalable Encrypted Traffic Analytics in Multi-Gbps Networks", in 2020 IEEE International Conference on Local Computer Networks, Sydney, AUS, 2020.

▫ "Towards Flow Sampling for Deep Content Analysis", in 2020 Cyber Defence Next Generation Technology science Conference, Brisbane, AUS, 2020.

-Research by Achintha Wijesinghe

Non-invasive cuff-less blood pressure estimation / Cardiovascular disease prediction from a light signal (PPG)

Publications

▫ Identifying the Optimum Region of the Human Sole to Extract the PPG Signal for Pulse Rate Estimation, ICSPS 2017, Nov 2017, Auckland, New Zealand

▫ A Robust Neural Network-Based Method to Estimate Arterial Blood Pressure Using Photoplethysmography., BIBE 2019, Oct 2019, Athens, Greece

Awards

▫ Disrupt Asia Startup Battle 2017 - Champions.

▫ Commonwealth Digital Health Awards (Non-Communicable Diseases category) - Winners.

▫ Microsoft Imagine Cup 2017 (Sri Lanka) - 2nd Runners Up

-Research by Buddhishan Manamperi

Identifying upper arm injuries due to throwing

Publications

▫ A Low-Cost Wearable System to Analyze the Human Arm for Predicting Injuries Due to Throwing, 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'19), Berlin, Germany

Machine Learning Experience working with retail, sales and consumer data in one of the largest retailers in USA - Kohls (Fortune 500)

Image Enhancing Software to test image pre-processing functions

Image enhancement application based on OpenCV and PyQt4. You can use this as a small image enhancement software for day-to-day work and can be used to do pre-processing for images before feeding into a Neural Network.

Image Morphing application using Python

Classification of MNIST digits by Inception CNN modules.

Tensor-flow based classification of MNIST digits by convolutional neural networks (CNN) with Dropout and Inception layers.

Level Set Image Segmentation using Python

Python implements a new level set formulation, called distance regularized level set evolution (DRLSE), proposed by Chunming Li et al's in the paper "Distance Regularized Level Set Evolution and its Application to Image Segmentation", IEEE Trans. Image Processing, vol. 19 (12), 2010

Yolo wrapper for python

CNN models viewer to visualize inner layers of CNNs

AI to play Google Chrome T-Rex game in python
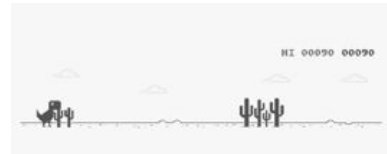
-Research by Ramesh Rathnayake (Find out more)

Personalized Cachier-less shopping store

POC implementation of a cashierless shopping experience with deep learning techniques (Try out to reverse engineer Amazon GO).

▫ The person entered is re-identified and tracked throughout the store via CCTV cameras. The customer interactions with the shelves are recognized by deep learning techniques.

▫ Sensors on the shelves will identify the interactions with the shelf. *Sensor fusion techniques* to map shelf interactions with the appropriate customer.

▫ The bought item list is sent to the mobile app of the customer.
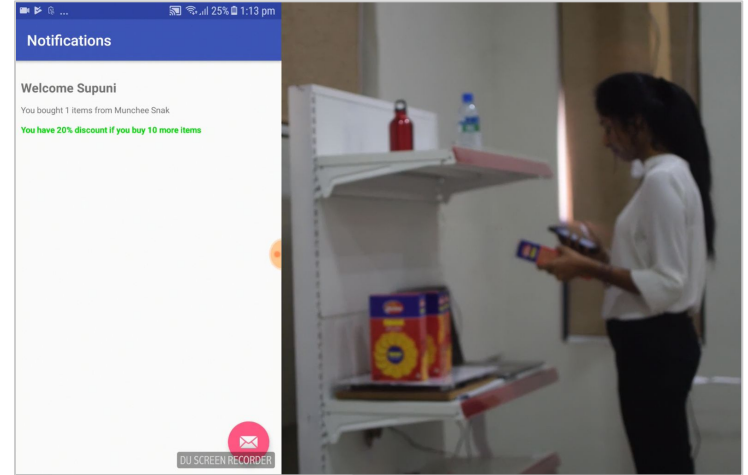
Research by Ramesh Rathnayake ([Find out more](#))

Thank you

Fcode Labs

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Sri Lanka 🇱🇰

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Singapore 🇸🇬

Fcode Labs Pte Ltd.
BLK 108, Pasir Ris Street 12, #04-79 Singapore, 510108.