
Organisation / Motivation / Executive Summary

Enterprise Computing Team Project

CA472



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1. Executive Summary

SCAN-N-GO is an application whereby a consumer can enter a retail store, scan a barcode of any product(s) and pay utilising their phone's built-in payment system (Apple Pay, Google Pay etc.). This will allow consumers of fast-paced retail stores to bypass traditional queuing systems in-store, hence expediting their time in-store. Studies have found that people spend on average up to 47 days queuing over the course of their lifetime. We found this particular statistic staggering and this contributed to the motivation behind the project. SCAN-N-GO will operate within a two-sided business model. We have identified two primary customer segments - owners of fast-paced retail stores and customers of fast-paced retail stores. For each of these customer segments, we have defined two different value propositions that we intend to deliver. Our value proposition to owners of fast-paced retail stores is to increase store profitability by saving cashier staffing hours by at least 10 hours per week and increasing store revenue by at least 10%. Our value proposition to Potential Consumers of these retail stores is to eliminate 100% of customers' in-store checkout queuing time by providing a quick and seamless shopping experience solution.

For consumers of fast-paced retail stores, we will provide a web application that can be accessed via their mobile device. This application will be the product for this customer segment and the catalyst for scanning barcoded goods to enable the quick purchase of goods in-store. This application will allow the consumer to pay for one or many goods simultaneously.

For owners of fast-paced retail stores, we will provide an admin interface which will be setup within the retail store to enable in-store staff to monitor the activity of the SCAN-N-GO users that are currently in-store. This admin interface will display information such as how many users are in-store, the names of users in-store alongside user profile pictures, what goods each user has scanned in-store as well as a notification of when purchases are made. This information will act as an increased security measure for the retail store.

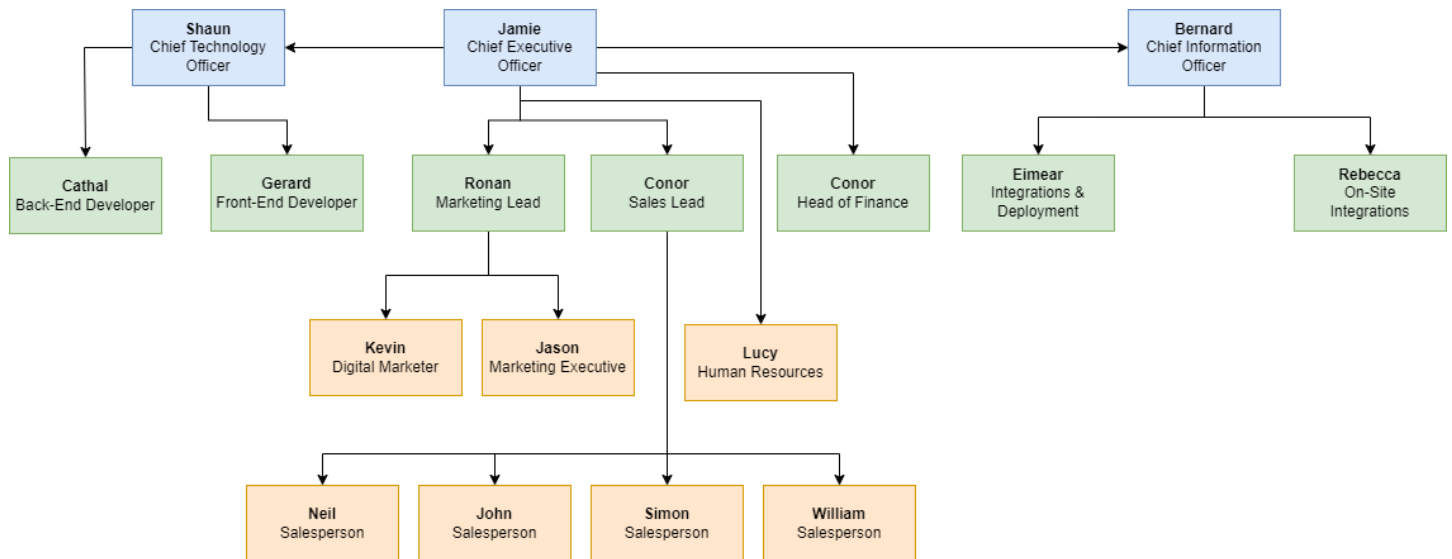
2. Management report

Proposed organisational structure

Organisation Chart to show the development team needed to complete the SCAN-N-GO development.

Assumptions;

The below organisational structure is based on a ~5 year time horizon for the business.



Developers

- Front-End Developer
 - Responsible for the front end development and maintenance of the application
- Back-End Developer
 - Responsible for the backend development and maintenance of the application

Marketing

- Marketing Lead
 - Manages activities completed by digital marketing and marketing executive whilst ensuring communication to the public is inline with SCAN-N-GO's mission.
- Digital Marketer
 - Oversees and produces content related to social media and overall digital marketing.
- Marketing Executive
 - Performs traditional marketing method to compliment SCAN-N-Go's overall marketing strategy.

Sales

- Sales Lead
 - Responsible for overseeing all sales related activities as well as driving further initiatives to on-board customers.
- Salesperson
 - Store-to-store sales responsible for acquiring new customers and supporting existing clients.

Human Resources

- Human Resources
 - Works with employees to provide advice and guidance internally.

Finance

- Finance Lead
 - Supports CEO in acquiring further funding the business as well as overseeing all finance related activities to ensure positive cashflow and sufficient runway.

Information Management

- Integration & Development
 - Responsible for deployment and integration for docker on Azure, as well as aiding clients during the onboarding process.
- On-site Integration
 - Responsible for implementing SCAN-N-GO's technical solution on-site.

3. Project Log

A link to the log of each team member.

- **Jamie Behan:** [CA472 - Project Log](#)
- **Bernard McWeeney:** [CA472 - EC Team Project - Log](#)
- **Shaun Kee:** [SCAN-N-GO Project Log](#)

4. Time Description

The workload was evenly distributed among the three of us. We each had equal responsibility for the success of this project and we leveraged our individual strengths and weaknesses to deliver a successful project.

The workload was distributed as follows:

Technical Components - Shaun (33.33%), Bernard (33.33%), Jamie (33.33%)

Commercial Components - Shaun (33.33%), Bernard (33.33%), Jamie (33.33%)

Project Advisor:

Jennifer Foster, Enterprise Computing Chair.

Semester 1

Week 1 - 5

During weeks 1-5 we reached out to Jennifer Foster regarding mentoring of our group. Met with Silvana multiple times to discuss the formation of a group of 3. This was later approved. Met with Jennifer to discuss our project idea and value propositions.

Week 6 - 10

During weeks 6-10 the team collaborated to deliver upon the ethics documents to get approved by the board. We also reached out to Jennifer to discuss the ethics document, this was approved within this time. Completed and submitted the idea proposal. Presented our project proposal to the panel, this was then graded and we received our results. Conducted both primary and secondary research to further our understanding of the project we were undertaking. We further discussed technical considerations of our project.

Semester 2

Week 1 - 6

During weeks 1-6 the team completed and submitted the mid-term delivery. Met with Jennifer to discuss next steps of the project and demonstrated our application for the first time. We outlined the steps that were necessary to follow through and complete our project. Core features included barcode scanner, admin dashboard, security functionality and overall look and feel of the application. Market research was conducted during this time, both primary and secondary. This research further validated our market and certain design choices. Received our result from the mid-term delivery, which included actionable feedback we could take forward. Showcased the functioning barcode scanner, which was core functionality as previously mentioned. As well as made progress on market research components.

Week 7 - 12

During weeks 7-12 the team made progress on the admin dashboard and completed the necessary material for the project expo, such as, project description, poster and video. Developed a security specification for SCAN-N-GO which outlined all known security concerns and solutions. Completed and demoed close to full functionality within the application. Conducted user testing and eliminated known bugs. Completed and submitted a first draft of the report components of the project.

Week 12+

Once the semester had concluded, we ramped up work on all components of the project which led to a meeting with Jennifer where we demonstrated our functioning application, complete with admin dashboard and customer web-app. Further testing and tweaking was undertaken regarding the technical component. The feedback received from Jennifer with regard to the report section of the project were taken into account and implemented. Completed and submitted all necessary components.

Appendix 1

Team CVs, outlining the strengths of the team.

SCAN-N-GO

Retail Industry

SCAN-N-GO

Dublin City University
Glasnevin, Dublin

Jamie.behan6@mail.dcu.ie
Bernard.mcweeney2@mail.dcu.ie
Shaun.kee2@mail.dcu.ie

Skills

Hard working and result-driven trio with a diverse pool of previous industry experience.

Experience

Electric Ireland / Digital Team

January - September 2021, Dublin

Developed and deployed a bespoke chatbot solution. Regularly interfaced with internal and external stakeholders to deliver digital solutions for the business.

SAP / Center of Expertise

January - September 2021, Dublin

Worked closely with international SAP clients to upgrade their e-commerce solution and ERP implementation.

SIRO Communications / IT Executive

January - September 2021, Dublin

Worked with higher management to develop a work logging system for external stakeholders.

Education

Dublin City University / Enterprise Computing


Core coursework: Entrepreneurship, Programming, Enterprise Architecture, Project Management


Various / Leaving Certificate


Educated in all core subjects, as well as various optional modules. Achieving a high average grade.



CONTACT

 Mountcharles,
Donegal, F94 PD00
College Park DCU
Glasnevin, Dublin

 (+353) 87 7505 922

 shaun.kee2@mail.dcu.ie

SKILLS

- Adobe Photoshop
- Programming & Web Design
 - Django, Python, HTML, CSS, JS
- Professional Marketing
- Agile Project Management
- UI & UX Design
- Software Testing
- Organisation & Delegation
- Clear Communicator

HOBBIES

- Formula 1 Racing
- Vintage Car Restoration
- Building Home & Enterprise IT Projects
- Producing Electronic Music
- Fitness and Exercise

SHAUN KEE

Highly motivated and performance driven with 3+ years' experience in team management and highly knowledgeable in professional design, marketing & IT. Diverse pool of previous experience such as event management, sales, e-commerce, agile software development, IT infrastructure management and more.

EXPERIENCE

- JUN 2018 - PRESENT** • **Director of E-Commerce & I.T**
Robert Kee Ireland (www.robertkee.ie)
E-Commerce Management
 - Managed digital marketing team and order fulfilment team
 - Grew revenue from [redacted] in 2018 to [redacted] in 2021
 - Liaised with web designers (frontend & backend) to upgrade functionality and UI
 - Redesigned and restructured fundamental business processes
 - Delegated tasks to team members and conducted regular reviews
 - Single handedly developed, maintained and upgraded an in-house order automation software that increased order fulfilment efficiency by over 90%
IT Infrastructure Management
 - Worked with 3rd party providers to install, maintain and upgrade the IT infrastructure across all branches of the business
 - Worked with management to devise IT solutions to complex business problems
- JAN 2021 - SEPT 2021** • **Center of Expertise - Commerce Delivery Internship**
SAP Ireland
 - Worked with a large e-commerce retailer to facilitate a new website upgrade
 - End-to-end testing of new website features using an agile methodology
 - Designing user stores and outlining test cases
 - Co-ordinating UI/UX meetings between SAP UI developers and third party UX designers
 - Communicated bugs and improvements to frontend and backend developers
 - Awarded SAP Hall of Fame award, nominated by senior management
 - Chosen by management to present our teams project to the entire Center of Expertise
- APR 2017 - JUN 2018** • **Digital Marketing & Design**
Robert Kee Ireland (www.robertkee.ie)
 - Responsible for all digital marketing and design for all branches of the business
 - Design** – Photoshop, CSS, Google Web Designer, Final Cut Pro & more
 - Digital Marketing** – Google Ads, SEO, Email Marketing & more
 - Complete e-commerce tasks during busy periods (Order processing, customer service etc)
- DEC 2015 - OCT 2017** • **Entertainment Advisor & Provider**
PULSE Entertainment Letterkenny
- FEB 2015 - APR 2016** • **Co-Founder and Director**
ENVY Entertainment
 - Co-Founded and managed local nightlife entertainment organisation for under 18's
- MAY 2012 - APR 2017** • **Sales & Customer Service**
Robert Kee Ireland

EDUCATION

BSc Enterprise Computing
Dublin City University
On track to graduate with a First Class Honours
Highest grades amongst peers in year 1

Leaving Certificate
Abbey VS Donegal
521 Points
Choice Subjects: Business, Physics, Design Graphics

OTHER EXPERIENCE

- Charity Donations of more than €5,000 raised from organising local events
- Vice Chair and Graphic Designer for DCU Start Up Society
- Certified in SAP BC400, ADM315 Workload Analysis, SAPTEC NetWeaver & HANA DB
- Chosen to orientate new DCU computing students

Ambitiously pursuing a career where my strengths of Leadership, Forward-Thinking, Computing, Communication and Adaptability can make a difference; obtaining an entry-level technology related position within an organisation.

EDUCATION & SKILLS

Dublin City University, Dublin | Dublin, IE 2018-2022

Bachelors of Science, in Computing for Business

- Core coursework: Entrepreneurship, Programming, Enterprise Architecture, Project Management
- Excellent verbal and written communication skills
- Advanced in Microsoft Office, Google Suite
- Experienced and passionate about customer service
- Detail-oriented and superb organisational skills
- Adaptable and dependable, efficient problem solver
- Excellent interpersonal skills
- Consistent and reliable team-player

PROFESSIONAL EXPERIENCE

Electric Ireland, Dublin, Ireland 2021

Customer Service & Digital Team (Internship)

- Developed and deployed a bespoke chatbot solution
- Maintained and updated components of company website
- Regularly interfaced with internal and external stakeholders to deliver digital solutions for the business

Consort Motor Parts, Dublin, Ireland 2015-Present

Sales Assistant (Part-time & Summer Breaks)

- Provided automotive components for customers
- Resolved customer queries in relation to their vehicle
- Maintained business website and email

Wysdom Ireland, Dublin, Ireland Summer 2017

IT Consultant (Summer Break)

- Providing on-site IT solutions for customers
- Interfacing with customers to deliver customer-focused solutions

Together Digital, Dublin, Ireland Summer 2016

Trainee Web Designer (Summer Break)

- Created and designed test website
- Gained valuable exposure to web design process
- Introduced to how large collaborative projects are conducted

Aloha Mental Arithmetic, Dublin, Ireland 2016-2017

Assistant Teacher (Part-Time)

- Taught children aged 5-13 mental arithmetic
- Worked closely with children and their parents

VOLUNTEER EXPERIENCE

Gaisce - Presidents Award, Dublin, Ireland 2015-2016 *Bronze Award Achieved*

- Engaged in a 26 week community waste clean-up programme
- Offered help at local food banks during this period

Green Schools Committee, Dublin, Ireland 2016-2018 *Head of Green Schools Committee*

- Achieved "Green Flag" status for High School
- Organised a team to regularly school and surrounding area of litter
- Achieved Neat Streets School of the year award

AFFILIATIONS

- **Lead Graphic Designer of Dublin City University Start-Up Society (September 2019-2021)** All aspects of design handled from logos to promotional posters.
- **Member of Dublin City University RedBrick Society (September 2018-2021)** Dublin City University's programming and computing society.

Bernard McWeeney

Address:	Downestown, Duleek, Co. Meath	Date of Birth:	12 th of April 2000
Email:	bernard.mcweeney2@mail.dcu.ie	Age:	22
Phone:	0860668871	University:	Dublin City University
LinkedIn:	www.linkedin.com/in/bernard-mcweeney	References:	Available on request

Career History

1) Retail/shop supervisor for Applegreen Duleek (July 2018 – Continuing)

As shop supervisor for nearly 2 years I have gained great experience with working with the public, supervising and training new staff, dispensing restricted goods such as alcohol and tobacco and operating and dealing with large amounts of cash. I have made a positive impact at Applegreen Duleek, always scoring well with in-house audits and have become a reliable and trustworthy colleague. From working on a medium sized retail site, I have acquired an adaptive and transferable skill set. Some key skills obtained are outlined here:

- o Ability to work under pressure
- o Patience and dedication to the job
- o Great customer service
- o Trustworthy and dependable

2) State examination attendant for the state examination commission. (June – July 2016)

I worked for the state examination commission for 2 months. During this time, I was in charge of the leaving certificate department of attendants ensuring their duties were conducted satisfactorily and up to standard. I have outlined some of my other duties below:

- o Assist the superintendent in the preparation of the examination centre
- o Control of access to the exam centre
- o Ensuring there was no disturbances or distractions that could disrupt the candidates during their examinations
- o Accompany candidates that leave the examination centre temporarily

Computing Projects

- o Second Year - Programming 3 Module
As a group, I built a python program for booking timeslots for DCU's Clubs & Societies. Some features of the program: We had an Admin & Regular user login, the ability to add & delete users, the ability to add or delete bookings and the creation of unique individual accounts for Societies & clubs.
- o Second Year - Developing Internet Applications Module
As a group, I built a website using the python-based Web-Framework called Django. Some features of the website: We had an Email forum, A Poll section for casting votes, a blog with a comment section and a Navigation bar.
- o Personal Project - Summer 2020
I created a WordPress website for my local parish --> <https://duleekbellewstownparish.com>
Some skills learned: how to obtain a domain, add an SSL certificate, gained some design skills and became familiar with WordPress, CSS and HTML.

Skills and Qualities

- I am adaptable & organised, with an Innovative & entrepreneurial mindset.
- I am familiar with Python, HTML, CSS and I am currently learning some Java-Script
- I am Proficient at Microsoft Office, Google Suite, Adobe Programs, and Zoom
- I am familiar with Windows, Mac and Linux operating systems

Education

- Third Level Education:**
- Dublin City University (DCU)
Dublin City University Glasnevin, Dublin 9
September 2018 – expected end date September 2022
- Secondary Education:**
- St. Mary's Diocesan school
Beamore Rd, Drogheda, Co. Louth
September 2013 – May 2018
- Primary Education:**
- Scoil Colmcille, Mount Hanover
Mount Hanover Rd, Co. Meath
September 2004 – June 2013

Qualifications

- University degree in Bachelor of Science (Hons) in Enterprise Computing (level 8 NFQ).
- Currently aiming to achieve a First-Class Honour in Enterprise Computing.
- Leaving Certificate Result of 425 points (level 5 certificate).
- Junior Certificate results of 7 A's, 2 B's and 2 C's (level 3 certificate).

Personal Interests

- I follow closely developments in technology & business.
- I have a keen interest in agriculture & gardening.
- I enjoy the practicalities of installing domestic grade systems (CCTV, Internet Networking, etc.)
- I volunteer at my local Saint Vincent de Paul society.

Personal Achievements

- Became Deputy Head-Prefect in St. Marys Diocesan school 2017 – 2018.
- I have a full clean drivers' licence.
- I am an "Extra Ordinary Member" on the committee of DCU'S Start-up Society.
- Received recognition for achieving the highest grade for construction studies in my secondary school for the Leaving Certificate 2018 and for achieving one of the highest overall results in my secondary school for the Junior Certificate 2016