

# DocDuck Marketing Plan

## SWEng Group 1

## May 28, 2024

## Contents

1	Version History	3
2	Introduction	4
3	The Team	4
4	Key Activities	5
5	Key Resources	5
6	Competitive Product Analysis           6.1         Market Research           6.1.1         MaintainX           6.1.2         AssetPanda           6.1.3         MicroMain           6.1.4         Limble CMMS           6.1.5         Click Maint CMMS           6.2         Product Features           6.3         Unique Selling Points (USPs)           6.4         Market Testing           6.4.1         Ethics           6.4.2         Assumption           6.4.3         BMC (Business Management Canvas) Blocks Tested           6.4.4         Market Survey & Analysis of Results	55 55 66 67 77 77 77 88 88 88 99
7	Target Audience	9
	7.0.1 Clients' Goals	9
	7.0.2 Clients' Difficulties	9
	7.0.3 Our Solution	9

CONTENTS v1.0

8	Marketing Strategy	9
	8.1 Get	10
	8.2 Keep	
	8.3 Grow	
	8.4 Referral	
	J. T 10001101	10
9	Business Partners	10
10	Selling Channel	10
	10.1 Online Advertising	11
	10.2 Email Marketing	11
	10.3 Social Media Marketing	
	10.4 Conferences and Exhibitions	
11	SWOT Analysis	11
	11.1 Strengths	11
	11.2 Weaknesses	
	11.3 Opportunities	
	11.4 Threats	
12	Marketing Portfolio	12
13	Pricing Proposal	12
14	Design Theory	13
	14.1 Competitor Design Analysis: Asset Panda	13
	14.2 DocDuck Branding From Research	
15	Appendix	14

# 1 Version History

Marketing	Release	Changes	Contributors
Plan Version	Date		
1.0	26/01/24	Initial Version. Created Sections: 1, 2, 3.1, 3.2,	jrb617, nc1196,
		3.3, 3.4, 4, 5.1, 5.2	ttc515, $htsm500$ ,
			lw2380
2.0	28/05/24	Final Version	nc1196, ttc515,
			htsm500

## 2 Introduction

DocDuck is a cost effective and user friendly software designed with customers at the heart-streamlining the machine management process for engineering startups and small businesses.

This document presents DocDuck's comprehensive marketing plan. It includes a detailed product analysis, pricing proposals and various marketing strategies.

The key sections of this report include:

- Market Research An analysis of key competitors, including MaintainX and Asset Panda, focusing on their features, pricing, strengths, and weaknesses.
- Unique Selling Points (USPs) These highlight DocDuck's distinctive features such as our comprehensive repair logging system, friendly UI and advanced security measures.
- Target Audience This defines the primary users of DocDuck, specifically engineering startups as well as discussing their needs and challenges.
- SWOT Analysis A detailed examination of our strengths, weaknesses, opportunities and threats.
- Marketing Strategies How we plan to advertise our product
- Distribution Channels How we plan to deliver our product to customers
- Customer Segmentation A breakdown of the customer segments, focusing on the 'B2B Business to Business' segment. This looks at engineering startups, including their goals, frustrations and what problems DocDuck can solve for them.
- Finance A detailed breakdown and discussion of our finances.

By having a comprehensive marketing strategy, we plan for DocDuck to be the go-to solution for maintenance and engineering management.

## 3 The Team

- Founder/CEO James Stevenson: James is a 3rd year MEng Electronic Engineering student at the University of York. He is a visionary who draws on experience and insight from the experts he surrounds himself with while working in the field, leading DocDuck to push boundaries and conquer challenges. His sight is set on ensuring that DocDuck provides a high-quality product that helps start-up companies efficiently manage their machines with minimum cost and be able to put more resources into developing their company.
- Marketing Manager Noah Carter
- Design and Specification Manager Jabez Cheung
- Software Manager William Betteridge
- GUI Developer / Graphic Designer Luke Warbey
- Finance Manager Hari Mamman
- Documentation Manager Rob Walker
- Testing Manager Zhihao Ma
- Communications Manager Josh Bradley

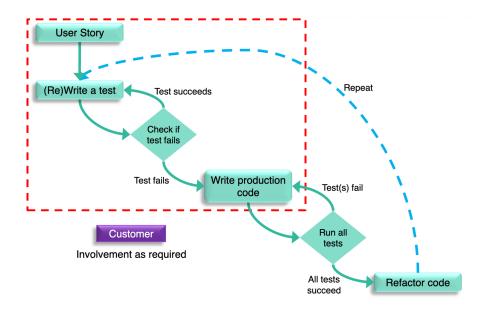


Figure 1: Agile product development from UoY Sweng lecture notes

## 4 Key Activities

We are taking an agile product development approach as shown in figure 1. By this approach, we are having a closer relationship with the customer, where we would get feedback from the customer at every stage of product development before we move on, ensuring that our product is designed and built to spec at a high quality fulfilling customers' needs. The key activities operating the company for developing the product are as follows:

- 1. Design
- 2. Software development
- 3. Agile development process
- 4. Marketing testing
- 5. Free trial promotion period
- 6. Sell

## 5 Key Resources

- 1. Software Coding Team
- 2. Marketing Team
- 3. Finance Manager
- 4. Workspace

## 6 Competitive Product Analysis

## 6.1 Market Research

#### 6.1.1 MaintainX

- **Description**: A mobile oriented preventative maintenance software ideal for managing work orders, scheduling maintenance and monitoring equipment.
- Pricing: \$19 \$49/user/month  $\approx £15$  £38/user/month

6.1 Market Research v1.0

• **Pros**: Easy to add work orders, parts and assets as well as built in messaging and barcode/QR code scanning, design is optimised for mobile devices such as phones and tablets

• Cons: Limited reporting and analytics on lower tier plans, you can only attach files with more expensive plans



Figure 2: MaintainX Logo

#### 6.1.2 AssetPanda

- **Description**: Offers a set of applications for asset management including asset tracking, inventory management, audits, depreciation, maintenance tracking, facilities management, calibration tracking and employee tracking.
- Pricing: Determined annually based on number of assets used
- Pros: Integrated barcode scanning in the mobile app, unlimited users, free trial
- Cons: Exact pricing isn't available, limited integration with other software



Figure 3: Asset Panda Logo

#### 6.1.3 MicroMain

- **Description**: Comprehensive maintenance management app including features such as spare parts and depreciation tracking
- Pricing: \$89/user/month  $\approx £67.50/user/month$
- Pros: Unlimited sites, comprehensive features
- Cons: Not intuitive UI, data entry can be tedious



Figure 4: MicroMain Logo

6.2 Product Features v1.0

#### 6.1.4 Limble CMMS

• **Description**: A customisable maintenance management software with automated reports and tailored widgets.

• Pricing: \$35/user/month  $\approx £26.60/user/month$ 

• Pros: Customisable dashboard view, fully functional trial

• Cons: Cannot schedule work orders for the future



Figure 5: Limble CMMS Logo

#### 6.1.5 Click Maint CMMS

• **Description**: Computerised maintenance management system which helps maintenance and facilities professionals cut costs and streamline processes.

• Pricing: \$35/user/month -  $\approx £26.60/user/month$ 

• Pros: Affordable, quick to implement

• Cons: Lacks advanced features, not suitable for more complex operations



Figure 6: ClickMaint CMMS Logo

## 6.2 Product Features

- Machine Health Status Overview
- Role-Based Access Control

### 6.3 Unique Selling Points (USPs)

- Cheaper than competitors
  We provide a cheaper solution for you as a small-scale business. Our cheapest option is £15 per month for 50 assets, compered to an over-killing 250 assets costing £50+ for the others.
- Comprehensive Repair Logging System Low price doesn't mean fewer features, full features of the app are already available at the lower tier of the subscription. Our cheapest option is £15 per month, compered to £50+ for the others.

6.4 Market Testing v1.0

- Advanced Security Features
   Keep your data and password safe from attacks with BCrypt hashing algorithm
- User-Friendly Interface
  UI can be customised, displaying machines with different layouts
- Efficient Booking System

  Look for the type of machine you need, book it, and it is sorted within a minute
- Notifications and Online Help Requests

### 6.4 Market Testing

A questionnaire has been designed with the intention of gathering the insight of our potential users and their opinions of our app. The questionnaire is created with Google Forms, URL: <a href="https://forms.gle/HpwmrwU6tLcNtMvNA">https://forms.gle/HpwmrwU6tLcNtMvNA</a>. Participants have been asked 13 questions about their:

- Occupation
- Company Size
- Machine Habits (Operating System / No. of Machines)
- Software Preferences/Expectations (if they already utilise a maintenance software, and/or what their expectations are)
- Consumer behaviour (pricing)
- Opinions (about the interface, or if they have any questions

The feedback from this survey will enable us to compare the critical assumptions we have made about our potential users against the real-world market. The survey has been attached in the appendix 11.

### **6.4.1** Ethics

An ethical approach has been taken regarding testing the general public and potential customers. Using the Ethics form provided by the University of York, we have been given approval and thus have been able to carry out this market research. An attached form signed by our Business Manager Mohammad Nasr Esfahani has been attached in the appendix 16.

## 6.4.2 Assumption

- Our potential customers are willing to try services from a startup company(DocDuck) if the price and quality of service are competitive. Valid
- Our potential customers usually have a smaller number of machines (under 100). -Valid
- Our potential customers are currently not using machine management software but would consider using one as they face challenges with the efficiency of repairing and logging. Invalid
- Our potential customers would value function over the UI of an application -Valid

### 6.4.3 BMC (Business Management Canvas) Blocks Tested

- Customer relationship
- Customer segmentation
- Value proposition

### 6.4.4 Market Survey & Analysis of Results

As our product targets startup companies, the scale is usually smaller with fewer staff and machines. According to the result of the questionnaire, 66.7% only have  $\leq 5$  staff and 33.3% have up to 20, where 16.7% have up to 100 machines and the rest have under 50.

Although the majority of participants face challenges with the efficiency of repairing and logging, 66% are not using and have not considered using machine managing software. This might be due to the high starting price of other services available in the market, which does not fall within their budget (under £20) shown in the result of another question.

However, considering the affordable price and high qualify of service that DocDuck would be able to provide, 50% have shown interest with 4 out of 5 likeliness of using our service. We also design a few questions to understand the habits and preferences towards our product, allowing us to fine-tune the design of our product accordingly. The result shows that 83% are using Windows, therefore coding our product in Java would have a large market coverage. Aligning with the difficulties our potential customers are facing, a comprehensive management system being the most appealing feature, followed by maintenance history logging, and UI design comes last.

To ensure our product is user-friendly, we have gathered users' habits and preferences for using the software. Half of them prefer images to display the machines, while another half prefer schematics. Therefore, we are planning to implement a button to switch between two display formats. When the users are unsure how a specific feature on our product works, it is crucial to have a guide, where a majority of 83.3% of our potential customers prefer to have a '?' button next to the feature to open up a help page, and 16.7% prefer a separate page with a video guide.

## 7 Target Audience

- Small Businesses and Startups; especially those in engineering.
- Established engineering firms
- Maintenance managers and technicians

#### 7.0.1 Clients' Goals

Our potential customers are people who have just started their company, hoping to reduce the risk by investing less money in the company but looking for good products and services to build up their business. find a product that suits their budget and scale

### 7.0.2 Clients' Difficulties

Products in the market with low prices have many limitations, that might not fulfil their needs, while options with more features are often designed for larger scale companies and might not be suitable for our potential customers, especially the high price.

### 7.0.3 Our Solution

Providing customers with a product with a high price-performance ratio. They can pay a small price but get a good product without too many compromises, and potentially upgrade their subscription plan when the company grow into a larger scale.

## 8 Marketing Strategy

This section will highlight the key steps regarding DocDuck's marketing strategies as discussed in the coinciding marketing portfolio.

8.1 Get v1.0

#### 8.1 Get

We will get customers through advertising our high pricing-to-performance ratio. The IET provides advertising and sponsorship opportunities through their engaging events, E+T magazines and the Wiring Matters platform. It would enable us to connect with engineers around the globe.

We would also promote our product on social media such as Instagram and TikTok. From this, we can pay an average of £10 a day, to get approximately 100,000 - 250,000 views every 30 days. This would cost £504 after the extra fees from TikTok's advertising platform. The remaining money we can use for advertising in the IET magazine. Customers can use the discount code in the advertisement to get 14 days off of a free trial.

This information is based on spending 8% of our revenue on marketing.

## 8.2 Keep

- Answering queries on our official Instagram account
- Help the customer to set up the system with a minimum price Set up the machine data for the customer, such as machine parts and tools
- Optimise service from customer feedback
- Provide service upgrading option to help customers achieve their goals along their journey We can provide different levels of discount for customers (e.g. Up to 20% off if they have been using our service for the past 12 months) if they want to upgrade the tier of subscription matching with business growth

#### 8.3 Grow

- Referring scheme
  Both customers can get a discount code of 30% off for a month
- Provide good service and build up the brand and reputation
   Maintain the quality of service and provide customer service through email, social media DM
   and video call to help customers solve the issues.
- We will further build up our reputation using social media, so that we can share successful examples of businesses subscribing to our service.

#### 8.4 Referral

• Discount Code - Referrals can be given out so that for each referral, both users will be incentivised and rewarded for sharing/joining.

### 9 Business Partners

- Startup Accelerators These programs tailored towards startups can provide and advertise our software as a solution to engineering startups.
- Cloud Hosting Providers / Servers
- Industry Influencers/Agencies for Digital Marketing

## 10 Selling Channel

This section will discuss the channels where we plan to advertise and deliver our product to customers.

### 10.1 Online Advertising

Run targeted advertisements towards engineering startups on platforms such as Google Ads, LinkedIn, and the IET magazine. The adverts would promote our special features and benefits,

## 10.2 Email Marketing

We can build up an email list of engineering startups and send them regular newsletters and product updates. Some of these could contain offers which businesses could use for a discount on our services as an incentive to keep coming back.

## 10.3 Social Media Marketing

We can establish a social media presence on platforms such as TikTok and Instagram to build a following and engage with our audience - engineering startups. Regular posts and updates can start discussions and raise awareness of DocDuck's solution to engineering management.

#### 10.4 Conferences and Exhibitions

We can (or plan to) participate in exhibitions and conferences catered towards our audience. Here, we are provided an opportunity to showcase our services to a wider audience and further increase our customer base.

## 11 SWOT Analysis

## 11.1 Strengths

- Comprehensive repair logging system
- Cheaper than competitors
- Advanced security features
- User friendly and intuitive interface for all skill levels
- Real time monitoring of machine health
- Multiple roles with different access privileges

### 11.2 Weaknesses

- New in the market, lack of reputation
- Resistance from those using traditional tracking methods afraid to implement technological solutions into the workplace

### 11.3 Opportunities

- Increasing demand for digital and automated maintenance systems
- Expansion into different sectors such as facilities or manufacturing
- Integration with different software
- Campaigns and advertising before release to drum up interest

#### 11.4 Threats

- Existing market provides competition
- Technology is rapidly evolving meaning the product will require continuous updates

## 12 Marketing Portfolio

A marketing portfolio has been created which goes into further detail on the above sections. There is a link to view it here: https://app.validatestartup.com/portfolio/b92a13a8-e227-465f-94a5-27e7dd7675ed/i-p-t-b-tg-d-cs-vp-ca-cr-ch-fe-ka-v-f-c

## 13 Pricing Proposal

After assessing our competitors pricing strategies, we decided upon following a scheme similar to that of AssetPanda, by charging per asset, rather than per user.

As we wish to remain as a cheaper competitor aimed at smaller businesses, we plan on pricing our product at £15 per 50 assets per month.

## 14 Design Theory

This section will link the design theory of competitors and apply them to DocDuck's Image.

### 14.1 Competitor Design Analysis: Asset Panda





Figure 7: Asset Panda Logo Colour Analysis

Asset Panda's colour scheme is Monochromatic with two tone shading. The exception is the blue tone which is a washed out deep pastel blue. The design choice from colour theory tells us that the brand is secure and calm, reflecting on how Asset Panda helps companies solve problems and reduce workers' stress on documentation and keep their data secure. This is something we want to be inspired by but not replicate as we need to be original.



Figure 8: Asset Panda font Colour Analysis with DocDuck place holder for testing

After Use a Font analyser I found Asset Panda have used "Ubuntu 700" as their chosen font which is a free for commercial use font. This font is a "Sans-Serif" meaning without ticks, it is slightly italic in nature and has a flare like its alive. Fonts in this case are genuinely used in less corporate background, focusing on being user friendly with an more open customer experience.

## 14.2 DocDuck Branding From Research

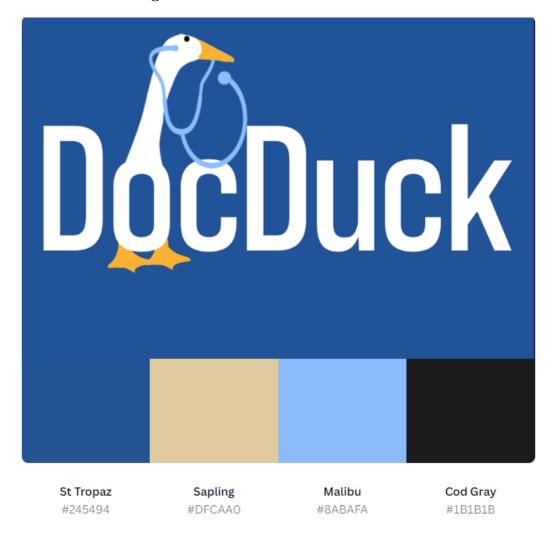


Figure 9: Asset Panda font Colour Analysis with DocDuck place holder for testing

DocDuck uses a split complementary colour scheme meaning contrasting between two similar shades of a colour in this case blue. Giving the similar deep blue from Asset Panda with a fun accent on a lighted pastel blue, contrasting with the mallard yellow.

The idea of the Duck was to pay tributes to the local wildlife within York, with the Duck being the most well associated with the town. The Duck was illustrated over with the image being licensed (in financial agreement).



Figure 10: Coolvetica Condensed Regular font

We used Coolvetica which is a more contemporary and sharper sans-serif font which still gives a friendly look but more symmetrical and simpler, reflecting on our new company focusing on budget friendly operations with start ups and small businesses.

## 15 Appendix

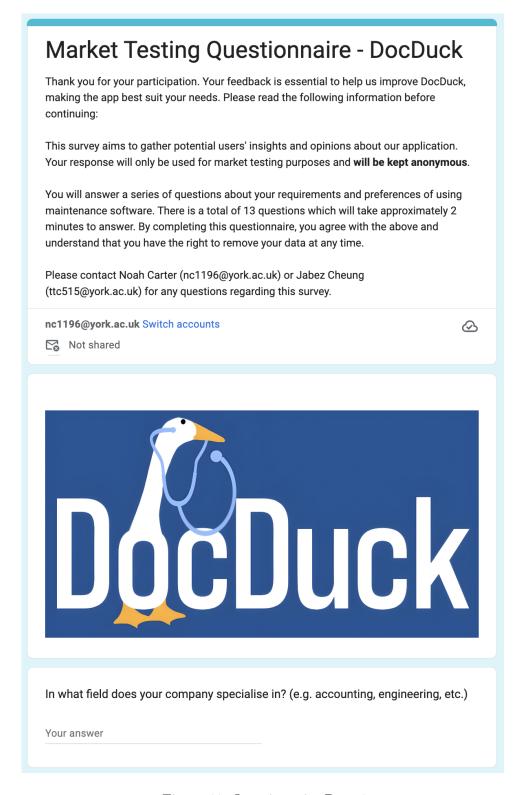


Figure 11: Questionnaire Page 1

How many employees work for your company?
<5
<u> </u>
O 20-50
<u> </u>
O 100-300
>300
As an estimation, how many machines does your company currently utilise? (Including PCs, printers, etc.)  This can include any machine that can be serviced or that requires regular maintenance, or is commonly used by multiple people in the company.
<u> </u>
O 11-20
O 20-40
<u> </u>
>100
What operating system are the devices running? Please select all that apply. If there are any missing, please add them in the 'Other' option.
Android
ios
☐ macOS
Windows
Linux
Other:

Figure 12: Questionnaire Page 2

Does your company use a maintenance tracking software?						
Yes						
○ No						
O Not currently, b	out we have one	selected and we're	setting it up			
No, but we're r	esearching opti	ons				
Other:						
tracking? (These a	What challenges does your company currently face with regards to maintenance tracking? (These are the most common issues, please feel free to add your own)  Machine status logging					
		Namaina)				
Repair time (Scheduling and Planning)  Inefficient communication with repairer						
Predictive Maintenance						
☐ Inventory Man						
		aintenance softwar	e)			
Other:						
Please rank the fo	_		iine maintenence	application in		
	UI design	Maintenance history logging	Unlimited work orders with attached Procedures	Comprehensive management system (Repair, Parts, Status)		
1 (most appealing)	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4 (least	$\bigcirc$	$\bigcirc$	$\bigcirc$			
appealing)	O	0	O	O		

Figure 13: Questionnaire Page 3

How much would you pay for a machine management app (per 50 assets per month)?

For context, we will be charging £15 per every 50 assets per month, up to 200 assets. Anything above this, contact us with your requirements and we will provide a quote.

£10-15

£15-20

£20-25

Other:

This is the main dashboard that the user will see. What would you like to see added? (e.g. history, features)

If n/a, please leave blank.

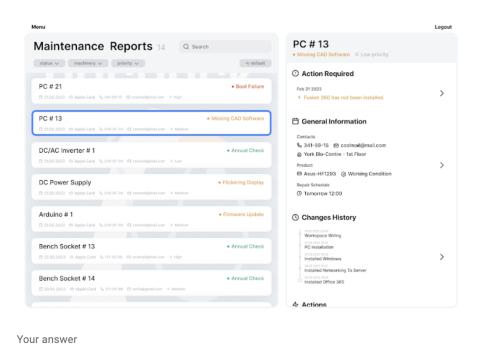


Figure 14: Questionnaire Page 4

Maintenance Reports   1   1   local	PC # 13  O serios frequente  Un anno frequente  Un anno frequente  Un anno frequente  O based before a frequente  A based before a frequente  A based before a frequente  A based before  Un annotation  O changes witcher  O	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)				
Schemetic Other:			0	Images		
When given guidance provided? (e.g. tips, h	now-to, etc	c.)	ше арр,	now wou	ia you like	ะ แกร เบ มะ
Pop-up "?" button  Written help page  Video tutorial  Other:		e feature				
Written help page Video tutorial Other:			cDuck in	your orga	anisation?	
Written help page Video tutorial Other:			cDuck in	your orga	anisation? 5	
Written help page Video tutorial	consider	using Do				Very likely

Figure 15: Questionnaire Page 5

Physical Sciences Ethics Committee

#### **FAST-TRACK ETHICAL APPROVAL FORM (STUDENTS)**

This fast-track system for is for taught students only. Research students and staff must complete the full Ethical Approval Form.

If you answer **YES** to any of the following you must complete either this Fast-track ethical approval form, to be signed off by your supervisor, or a full Ethical approval application, to be approved by the Physical Science Ethics Committee (allow at least two weeks for this process).

Note that the outcome of the Fast-track system may result in you needing to complete a full ethical approval application.

#### Does your project involve any of the following?

Human participants (adults or children

Human material (e.g. tissue or fluid samples)

Human data (e.g. surveys and questionnaires on issues such as lifestyle, housing and working environments, attitudes and preferences)

Vertebrates, especially mammals and birds

Any other organisms not previously mentioned

Military or defence context

Funding sources with potential to adversely affect existing relationships or bring the University or Department into disrepute.

Restrictions on dissemination

Overseas countries under regimes with poor human rights record or identified as dangerous by the Foreign & Commonwealth Office

YES	✓	NO	
YES		NO	✓
YES	✓	NO	
YES		NO	✓

Figure 16: Ethics Form Page 1

	ysical S mmitte	sciences Ethics ee	_					
Applications that could potential including potential dual-use app unethical				YES		NO	•	
<b>Students:</b> you should discuss the supervisor and, if necessary, fill in Ethics Committee.								5
<b>Supervisors:</b> Please ensure you ar principles for good ethical governa guidance from the Departmental E arising from this application. FAST-TRACK ETHICAL APPROVA	nce' ir thics C	n order to guide Officer if you are	your stude uncertain a	nt effecti	vely.	Plea	se see	·k
Project Information:								
Student Name: Noah Carter								
Course Title:ELE00089H:E	lectron	ics Group Projec	t Part B					
Tick one box:								
Undergraduate project	₹	Postgraduate	project					
Undergraduate module assignment Other (Please state)		Postgraduate r	nodule assigr	nment				
Title of project: DocDuck Market Tes	ting							
Project supervisor / module leader	name	: Stuart Porter.						
Protocol:								
a): If you answer NO to any of the following	ıg you n	nust submit a full e	thical approva	l form				
If you answer yes to any of the supporting literature (e.g. co						YE S	NO	N/A

# THE UNIVERSITY of York

questionnaires)

Figure 17: Ethics Form Page 2

Will you tell participants that their participation is voluntary?

Will you inform the participants of the purpose / background of the

Physical Sciences Ethics Committee

4	Will you obtain written consent for participation?	1	
5	If the research is observational, will you ask participants for their consent to being observed?	1	
6	Will you tell participants that they may withdraw from the research at any time and for any reason?	1	
7	With questionnaires and interviews will you give participants the option of omitting questions they do not want to answer?	1	
8	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	1	

### Protocol:

**b):** If you answer **YES** to any of the following you must submit a full ethical approval form.

		YE S	NO	N/A
9	Is your study designed to be challenging/disturbing (physically or psychologically)?		1	
10	Will you deliberately mislead your participants?		✓	
11	Does your study involve taking bodily samples?		1	
12	Is your study physically invasive?		✓	
13	Is there any obvious or inevitable adaptation of your research findings to ethically questionable aims?		1	
14	Could the methodologies or findings of your study damage the reputation of the University of York?		1	

#### **Health and Safety:**

Please identify any risks to the participants and state any precautions you will take to ensure their health and safety:

N/A

Figure 18: Ethics Form Page 3

Physical Sciences Ethics Committee

**Participants:** If you answer **YES** to any of the following you must submit a full ethical approval form. If you have ticked **YES** to 15 and your participants are **patients**, in addition to the full ethical application you must follow the Guidelines for Ethical Approval of NHS Projects.

			YE S	NO	N/A
15	Does your project involve work wit	h animals		✓	
16	Will any of the participants be from one of the following vulnerable groups?  Note that you may also need to obtain satisfactory DBS	Children under 18 People with learning difficulties People who are unconscious or severely ill NHS patients		✓	
	clearance (or equivalent for overseas students)	Other vulnerable groups (specify)			

 $\textbf{Data Protection:} \ \textit{If you answer NO} \ to \ \textit{any of the following you must submit a full ethical approval form}$ 

		YE S	NO	N/A
17	Any personal / sensitive data will be stored in password protected folders on computers.	1		
18	Any hard copies of personal data (including consent forms) will be stored in a secure place.	1		
19	Only the student and supervisors will have access to the data generated from the study. (The supervisor may share the anonymised data with other researchers at the University of York)	1		
20	The data will be preserved beyond the study in line with University policy and will be placed in the custody of the supervisor at the end of the project.	1		
21	All data will be anonymised prior to analysis.  Please state your method of anonymisation:	1		

Figure 19: Ethics Form Page 4

**Physical Sciences Ethics** Committee FOR THE STUDENT TO COMPLETE: Please complete and sign the following section and submit to your supervisor alongside any supporting documentation (this includes consent forms, information sheets and questionnaires where necessary). Provide a brief summary of the participants and procedures of your project (max 100 words) "This survey aims to gather potential users' insights and opinions about our app (DocDuck), feedback will be used for market testing purposes. Participants will be using approx. 3 mins. answering a series of questions about habits, preferences, and opinions. The responses will be kept confidential and anonymized. Participants are volunteered and may withdraw from the survey at any time for any reason." I have considered the ethical implications of this project and have identified no significant ethical implications requiring a full ethics submission to the Physical Sciences Ethics Committee ┫ I have included all relevant paperwork (e.g. consent form, information sheet, questionnaire/interview schedules) with this application Signed Print name Noah Carter Date 3rd May 2024...... (Student) FOR THE SUPERVISOR TO COMPLETE: By signing this form you are taking responsibility for the ethical conduct of this project The student has taken all reasonable steps to ensure ethical practice in this study and I can identify no significant ethical implications requiring a full ethics submission to the Physical Sciences Ethics 

Figure 20: Ethics Form Page 5

	nysical Sciences Ethics ommittee	
I have checked and approved all r proposal	elevant paperwork require	d for this $\Box$
STATEMENT OF ETHICAL APPR	OVAL	
This project has been considere track ethical approval procedu the University of York, and is no	re, agreed by the Physical	
Signed MNEsfahawi (Supervisor/Module leader)	Print nameMohammad Nasr E	sfahani DateDate
OR		
The details on this form indicat aspects of this project will not p		
Signed(Supervisor/Module leader)	Print name	Date

Figure 21: Ethics Form Page 6