COMPANION

Companion is a mobile app concept to streamline the treatment process for a reproductive disease to improve patient experience and minimise staff workload. The project was executed under Univeristy College London's entrepreneurial program - Mobile Business Ventures, in an attempt to establish a start-up in collaboration with fellow MSc cohorts from Business, Visual Design and Software Development disciplines.

RESPONSIBILITIES
Competitor analysis
Interviews
Thematic analysis
Persona creation
Paper prototyping
Wireframing
User journey creation
Sitemap creation

CONTENT
DESK RESEARCH
USER RESEARCH
PROTOTYPING
USER JOURNEY
SITEMAP
WIREFRAMES

 CONTEXTUAL RESEARCH

Desk research for detailed understanding of:
- Disease
- Diagnosis and treatment process
- Trends, stakeholders involved and facilities needed for patient care management

KEY FINDINGS

1. Disease demands expensive treatment which can last up to 6 weeks
2. Can be covered by NHS
3. Treatment involves regime with strict timelines for drug intake
4. Patients need to go through tests almost every alternate day
5. Patients need to take certain injections on their own at home. Partners are trained for the same.
6. The no. of patients in the UK have gradually increased every year by ~5% since 2009

 COMPETITOR ANALYSIS

A SWOT (Strength, Weakness, Opportunity, Threat) analysis was performed on
- Existing processes and software for patient care management systems for the concerned disease
- Study of other markets- US India, China

HIGHLIGHTS FROM COMPETITOR ANALYSIS

Strengths

1. Clinics are using latest medical techniques for easy treatment
2. Most clinics have very mature treatment process in place

Weakness

1. Exitsting software systems at clinics are complicated and less efficient
2. Seamless treatment demands frequent follow-ups with patients

Opportunities

1. Patient care management for this disorder in many NHS clinics is still paper based
2. No UK clinic has app for patients

Threats

1. Legal implications for patient data protection
2. Ethical implications

INTERVIEWS

Participants
- Primary users- Patients
- Other stakeholders- Clinicians and Nurses

Purpose:
To explore the subjective experience of staff and patients through in the treatment cycle

Method:
Semi-structured interviews on challenges, experience and strategies followed by participants during the treatment process

Analysis:
Transcribed interviews were coded to find repetitive themes by using Thematic Analysis

EMERGENT THEMES

insecurity
costly lack of knowledge
timely scans patient mistakes
communication gap
emotional unrest mistrust
transparency data sensitivity
variable drug regime

PERSONA

Alex, 31, Ex-patient
- I went through a lot and sometimes felt there was no one to listen to me
- Sometimes I was in enormous pain but the clinic didn't call me back until next day
- I had the feeling, all they cared about was money

Marcus, 41, Fertility Specialist
- I feel frustrated when patients don't follow instructions given on their program which eventually affects their chances
- Patients feel cheated if they don't get pregnant
- We train partners in the beginning of program to handle minor issues at home
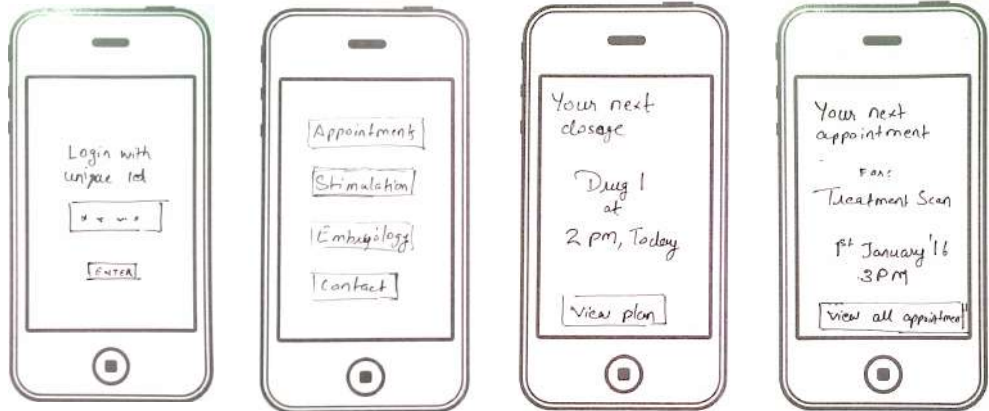
Kelly, 35, Nurse
- Patients go through a lot of emotions during the whole process
- I try to respond out of office hours call within 24 hours
- Sometimes they call for every small thing, it becomes difficult to answer every call

PAPER PROTOTYPE

Ideas were explored through paper prototyping to address issues found from research.

LOW-FI WIREFRAMES

Low-fi interactive wireframes for usability testing were created with Sktech and Invsion.

USABILITY EVALUATION

- Usability testing sessions with patients, doctors and nurses to get their feedback on low-fidelity wireframes

- Participants were asked to complete scenario based tasks in contextual inquiry sessions using think-aloud method

- Recorded audio and data obtained from observation during testing sessions were analysed to establish user requirements for the most viable product (MVP)

REQUIRMENT ESTABLISHMENT

The user requirements obtained from usability evaluation were classified into four categories using MoSCoW (Must have, Should have, Could have and Would have). Must have and Should have features were included for MVP, rest were left for the future work.
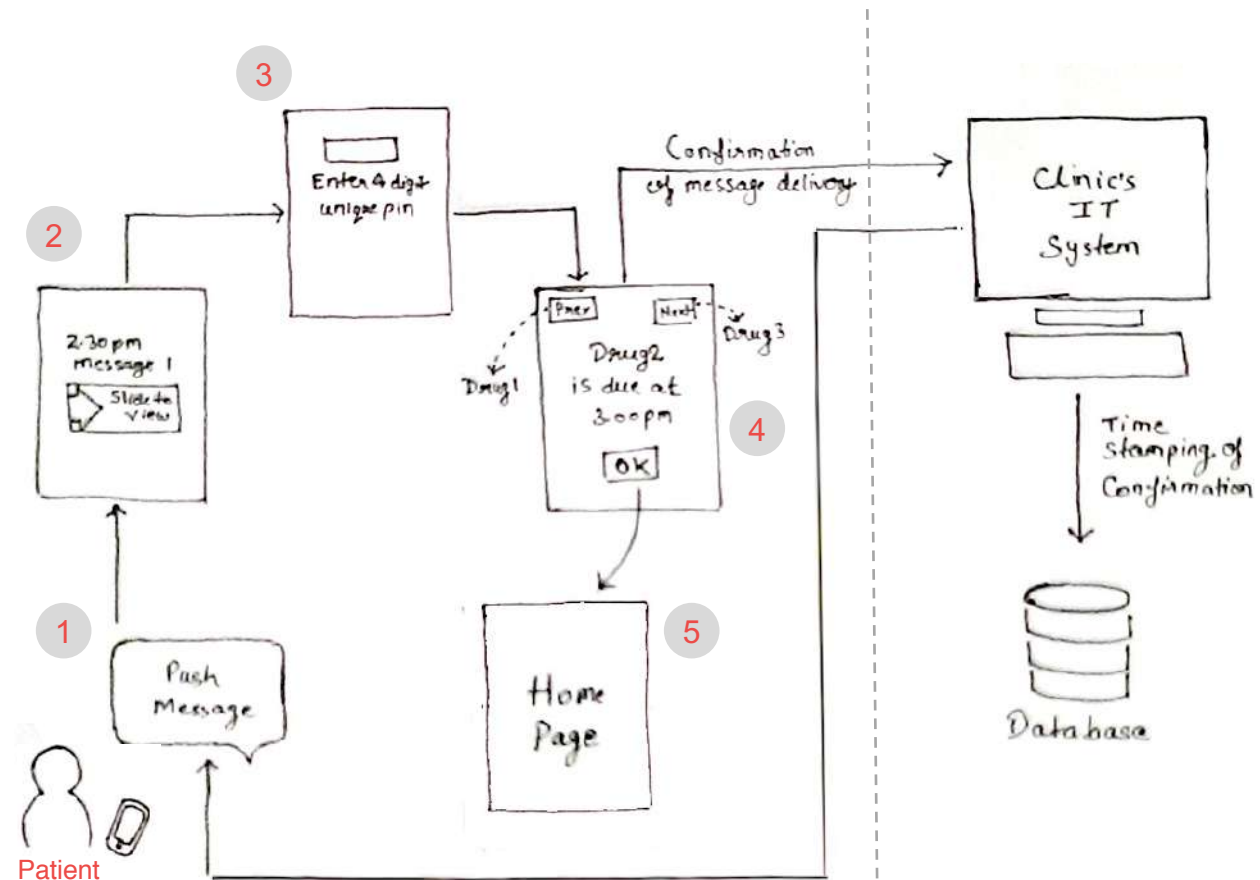
Must have

- Information on next dosage and scan appointment
- Medication and appointment reminder
- Confirmation to the clinic that message was read by patient
- Data protection- app registration and authentication through unique identifiers

Should have

- Feature to register result of pregnancy test
- Encrypted messaging facility to connect with the clinic

User journeys were created through rapid sketching method to determine the flow of interactions. These journeys were referred to produce the sitemap. Below user journey represents the flow of a medication reminder received through push notification.

Sitemap for the MVP

Registration only with unique
patient ID provided by the clinic

App Launch

Registration

Patient D

Push notification

Authentication

Unique Pin

Authentication through 4 Digit unique pin

• Overview of appointments and dosage
• Alerts

Home

Appointments

Messsaging

Treatment cycle

Dosage

Previoous

Upcoming

List

Previoous

Upcoming

List