# Design & Implementation of Digital Health – Final Assignment

N words:

## What do you think the components of the digital platform would need to be to support this intervention? (approximately 200 words)

Feebris: The system comprises a Feebris app and a Feebris Web portal. The former allows to monitor remotely a patient by carrying out a complete check up via wirelessly connected remote sensors (e.g. pulse oximeters, blood pressure cuffs and digital stethoscopes). Artificial intelligence allows to tailor the check up to each specific patient. At the end of the check-up. The app provides a patient risk score and a NEWS-recommended response. All patient data collected via the app (e.g. from a single care facility) can be integrated on a web portal, enabling detection of trends and prioritisation of cases.

In order to enable this system to work, the necessary components are: access to smart devices (e.g. smartphones) to use the app, digital sensors that can connect wirelessly, an IT device (e.g. computer) to access the web portal, a way to connect to the system learning/support remote facility.

Peppy: Peppy is a smartphone app that provides support for new parents, including access to remote peri-natal care services and mental health support (the need for the latter has been particularly increased with the Covid-19 pandemic). The digital system main components are: smartphones on which to install the app, an Internet connection and a system on the other hand of the service for professionals to connect with the app users (e.g. via mobile devices or computers). Access to a webcam would also be necessary for remote video consultations.

## What are the key benefits of the intervention that you have identified? (approximately 200 words and must include at least three key benefits)

Feebris:

* Improved patient care: the check-up is proactive and personalised at the point of care. The quality of care improves being better coordinated (e.g. between care home and healthcare providers)
* Enhanced staff capabilities and well-being: the system has the potential to save time and enable a better work-life balance for members of staff. Furthermore, it empowers non-clinical carers in providing a more focussed and precise health check. The integrated data on the web portal allows improved decision-making for a whole care centre.
* Increased service efficiency: The need to travel to GP for non-urgent treatment gets minimised. The system also helps in reducing hospital and A&E admissions and increases early diagnosis of diseases and patient deterioration. Finally, the system improves the management of staff resources.

Peppy:

* Peppy allows its users to remotely access a service whenever and wherever they need it most, saving up travel time and effort to visit a specialist in person.
* The service does not focus only on physical health (of parents and baby) but also on mental health, thus it offers a more holistic treatment for a family than just having access to a specific clinical specialist.
* The use of an app allows a wide section of the public to access the service, given the increasing adoption of smartphones in the recent years.

## What challenges do you envisage with the intervention based on your assessment of the intervention? (approximately 200 words and must include at least three key challenges)

Feebris

* The system might be complicated for staff to use and this could determine user resistance. Especially carers not confident with digital technologies might find it hard to use it.
* The care facility does not have powerful IT connections, thus data transmission might be difficult.
* The care facility does not have sophisticated digital technology and the cost of purchasing might discourage to adopt the system.

Peppy:

* The user acceptance of the app might be low due to issues in the design of the tool and in its level of ease of accessibility.
* Data security issues might undermine people’s trust and willingness to share their data via Peppy services
* Some companies (possibly the smaller ones) might not be able to afford the payment required to access some of Peppy services for their employees.

## What suggestions do you have to overcome the challenges that you have outlined? (approximately 200 words and must include at least three suggestions)

Feebris

* In order to decrease level of staff resistance in adopting the new system, the system needs to be designed as much user friendly as possible. Feebris also offers onboarding and training by customer success experts and ongoing customer support.
* Feebris allows its service to be adopted in any location or environment with or without Internet connectivity
* Feebris should use affordable technology solutions. It looks like they have taken the affordability issue into account by allowing their users to use smartphone (one of the cheapest technologies available nowadays) and smart sensors which, as they declare on their website, are “robust and affordable”.

Peppy:

* Peppy app should be designed taking their users in mind in order to increase its usefulness and acceptability. A user-centred design approach is recommended.
* Implement robust security and privacy solutions to ensure users’ data remains protected. Full transparency on data usage is also necessary to ensure public trust in Peppy (e.g. the data does not get sold to third commercial companies)
* Allow smaller companies to purchase smaller packages with core services to allow them to be able to guarantee their employees some form of support.