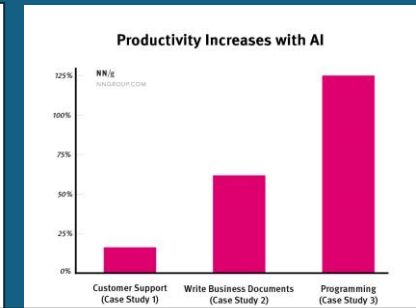


**Introduction :** “Deliver it” is an AI based assistant for delivery services. “Deliver it” can perform tasks such as: keeping track of delivery progress, Inventory, Daily delivery goal for workers, general statistics and more. Users will interact with this AI via voice commands and the use of “Deliver it’s” own application for smart phones.



The above chart shows the findings from three studies that prove Productivity Increases With AI. Source: <https://www.mmgroup.com/articles/ai-tools-productivity-gains/>

## The AI Components of Deliver It:

**Machine Learning (ML):** ML algorithms enable Deliver It to continuously improve its performance by learning from past interactions and data, leading to more accurate predictions and optimised decision-making. Deliver It utilises ML to optimise delivery routes, predict delivery times, and identify patterns in delivery data. It learns from historical delivery data to make better decisions and recommendations. ML is crucial for enhancing the efficiency of delivery operations by enabling Deliver It to adapt and optimize its performance based on past data; ultimately improving delivery times and resource utilisation.

**Natural Language Processing (NLP):** Deliver It uses NLP to interpret and respond to voice commands and written instructions, resulting in a user-friendly interface. NLP algorithms process and analyse spoken or written language, allowing Deliver It to understand user requests, extract relevant information, and output appropriate responses. NLP is vital for user engagement because it allows users to communicate with Deliver It naturally - minimising the need for complex interfaces and making the system overall more accessible for users.

## How The Components Are Assembled Into The Final System:

Machine Learning algorithms are constantly analysing previous interactions and data to optimise delivery routes, anticipate delivery times, and uncover delivery data patterns. Natural Language Processing capabilities allow Deliver It to interpret and respond to voice commands and written instructions, creating a user-friendly interface. These components work together harmoniously, with Machine Learning enabling the system to adapt and optimise its performance based on past data, while Natural Language Processing ensures effortless user interaction, minimising the need for complex interfaces. By combining Machine Learning and Natural Language Processing, Deliver It provides an efficient and user-friendly solution for managing delivery distribution centres, ultimately improving delivery times, resource utilisation, and user experience.

## The User Interface Design of Deliver It:

When Designing the UI for Deliver It, I had to consider both hardware and software side as the users will be interacting with both.

### Hardware

The physical Deliver It device will be interacted with via voice commands, the user will input an audible request such as asking for the latest delivery update in third street. This information is then presented to the user by an audio output through the devices speakers, the user will also be able to view previous queries through an application on their phone that links to the physical device. The reason for having the physical device in the workplace is that it won't affect productivity as it will only take a few seconds to ask a question and get a response. Whereas, if the user was to use the phone application for the question, productivity could be affected, as this could cause distractions and lead to the user going onto different apps and getting sidetracked from their job. Also, it could pose as a health risk to be using a phone in a delivery distribution centre.

### Software

The software is referring to the mobile application that Deliver It comes with, this application is only meant to be accessed in a zone that allows mobile phones as delivery centres have strict policies about phone usage. The application will be free for all workers and any worker that cannot afford a mobile phone, the company will provide one for them. The application will oblige to GDPR and The Data Regulations Act to ensure the users data is safe. The application will be easy to use, the font size and font will be easily readable, and there will be an option to change to any language. The app will take user requests such as: Query history, Personal Delivery goal, Team Delivery goal, Live delivery feed, Stock information, and any other information the company wants displayed. This information will be presented on different pages of the app, each page will correspond to a certain piece of information, this is so the user can easily read data and select what they want to view.



# DELIVER IT – AI Based Assistant For Delivery Distribution Centers