Document an existing experience

Narrow your focus to a specific scenario or process within an existing product or service. In the **Steps** row, document the step-by-step process someone typically experiences, then add detail to each of the other rows.

TEAM ID: PNT2022TMID00426
PROJECT NAME: NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION
DATE: 8/10/2022

SCENARIO

Novel method for handwritten digit recognition

Entice
How does someone initially become aware of this process?

Enter
What do people experience as they begin the process?

Engage
In the core moments in the process, what happens?

Exit
What do people typically experience as the process finishes?

Extend
What happens after the experience is over?

Steps
What does the person (or group) typically experience?

- When there is a need for processing application forms that contain handwritten digits
- To accurately predict the handwritten digits
- When there is a need for processing huge volume of handwritten forms/cheques.
- Capture the image
- Detect the font colours
- Download the sampling image
- Recognise using pretrained CNN
- Output will be the recognized number
- This will be in textual and audio format

Interactions
What interactions do they have at each step along the way?

- **People:** Who do they see or talk to?
- **Places:** Where are they?
- **Things:** What digital touchpoints or physical objects would they use?

- Input could be through images or touch pad devices
- Scanners could also be a source of input
- They upload and also the scan the image
- Touch pad devices can also be used for writing the digitd.
- Detects the poor quality of source image
- recognizing variability and ambiguity of strokes
- Recognizied digit in presented in form of text or speech
- People educate others on the dangers of websites stealing users' precious data
- They have conversations with their peers about a solution for web-phishing

Goals & motivations
At each step, what is a person's primary goal or motivation? ("Help me..." or "Help me avoid...")

- Primary goal is to detect handwritten digits from texts
- The main goal is to detect the digits from handwritten documents
- The main goal is to detect only the digits from the text
- The goal at this stage is to detect the angle of the digit and stress on points
- The primary goal is to identify the handwritten digits in processing bank checks

Positive moments
What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?

- Users will be happy to efficiently identify the handwritten digits
- Handle large volume of data efficiently and effectively
- Accurately reading the contents of the applicant to avoid misinterpretation of
- the method involves a relatively small number of parameters and hence training is relatively easy and fast
- generative models can perform recognition driven segmentation

Negative moments
What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?

- Users must have Prior knowledge about the working of the application
- In case of processing bank cheques, if data is mishandled, critical information could get breached
- It is not done in real time as a person writes and therefore not appropriate for immediate text input.
- it requires much more computation than more standard OCR techniques.
- The model might not run as fast as the user would like.

Areas of opportunity
How might we make each step better? What ideas do we have? What have others suggested?

- When processing the bank checks
- It can be used in when OCR is needed in the documents
- Biggest opportunity is to recognize the digits from handwritten documents
- It can be used when digits are overwritten
- It is used in forms and postal zip codes.
- To detect the stroked digits from andwritten form
- One of the main things to provide the accurate and efficient results .