Definitions:

- User: Uploader
    - Ingests technical manuals & documentation into the knowledge base
- User: Technician
    - Performs maintenance and repair work, interacting with the knowledge base via *interfaces*
- *Interface*
    - One of many methods of communicating with the knowledge base
- *Work Order*
    - A form with details about a maintenance order hosted on Dynamics 365

Requirements:

- Functional requirements
    - The system **shall** take in free-form data from the Uploader, in PDF format and extract illustrations and text from them.
    - The system **should** additionally take in the docx format.
    - The system **shall** show extracted illustrations and text from the document to the Uploader for verification purposes
    - The system **shall** associate texts and images to specific machinery specified by the Uploader
    - The system **shall** expose a service for any interface used by the Technician
    - The system **shall** hold a text conversation with a Technician via Natural Language
    - The system **should** hold a voice conversation with a Technician via Natural Language
    - The system **shall** contextualize such conversations with the work order given to the Technician
    - The system **shall** have a chat interface for the uploader to check if the extracted data has been correctly verified
    - The system **should** have a forum for a Technician to communicate with other Technicians
    - The system **should** parse, process and associate text and images from the forum to specific machinery
    - For this iteration of the system, the system **should** provide an API such that a HoloLens interface can use it
        - For this iteration of the system, it is not necessary for the HoloLens interface to be developed
- Non-functional Requirements
    - The Technician-facing interfaces **should** have low latency between prompt and output
    - The system **should** be scalable
    - The system **should** be easily adaptable to any clientele of Avanade

- As such, the software shall expect Work Order data from Dynamics 365
- User Requirements
  - The system **should** provide a means for hands-free access
- System Requirements
  - For this iteration of the software, the software **shall** communicate with a responsive web interface
    - The web interface **shall** function and scale to:
      - A mobile device
      - A tablet device
      - A desktop device
  - The software **shall not** use Azure CosmosDB
  - The software **shall** be hosted on Azure