ECMS - Software Engineering Internship

Alexander Langone

HCA Healthcare®

About me

Alexander Langone

Enterprise Content Management Solutions (ECMS) Intern

- I am a rising junior studying Computer Science at the University of Miami.
- I enjoy spending my free time golfing, running, and lifting weights.
- I love to code and deepen my understanding of technology. My favorite languages are Java and Python!
- I am interested in the spaces of cloud, automation, and Artificial Intelligence.
- I grew up wanting to be a doctor.

HCA Healthcare®

ECMS Overview

- OnBase Software – Document management and workflow application using **keywords**.
- 21 ECMS team members support OnBase.
- Infrastructure:
  - 45 Database Servers
  - 172 Utility Servers
  - 126 Web Servers
  - 16 Fax Application Servers
  - 168 Citrix Servers
- 1.18 Petabytes of total NetApp storage

HCA Healthcare®

Project Opportunity

- Background:
  - The ECMS team received a request ticket from a PDR (Patient Day Reconciliation) customer.
  - They knew that there was potential for automation in her daily tasks with OnBase.
- Current Challenges:
  - Having to rename and convert document formats for each file.
  - Manually importing and indexing directly into OnBase.

HCA Healthcare®

Opportunities for Automation

OnBase Document Import Options:

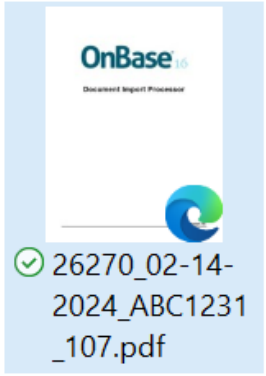
1. **DIP (Document Import Processing)**
   - Available to teams for importing documents.
2. **DrIP (Directory Import Processor):**
   - Not available in this OnBase instance due to high licensing costs.

Automation Solution:

- Develop a system to automatically rename and convert document formats.
- Implement a solution to automate the importing and indexing process in OnBase.

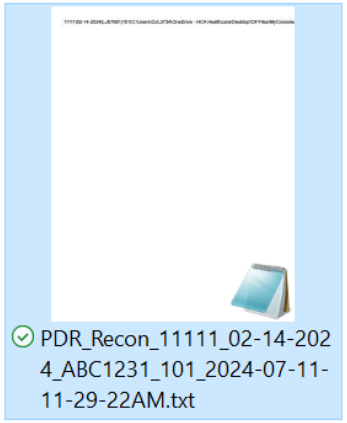
HCA Healthcare®

DrIP vs DIP



- **DrIP**: Contains document keywords in the document name.

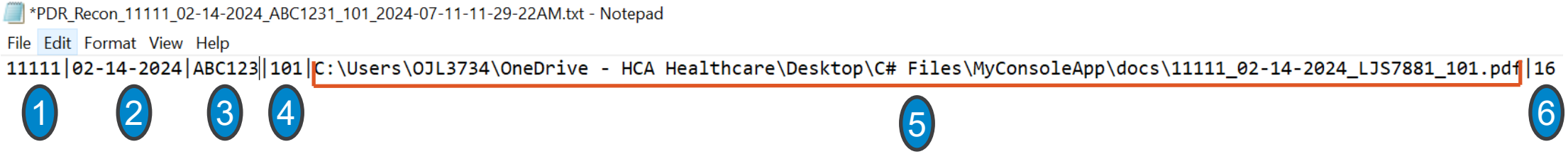
vs



- **DIP**: A text file containing document keywords and locations for OnBase to read during importing.

HCA Healthcare

DIP Keyword Content

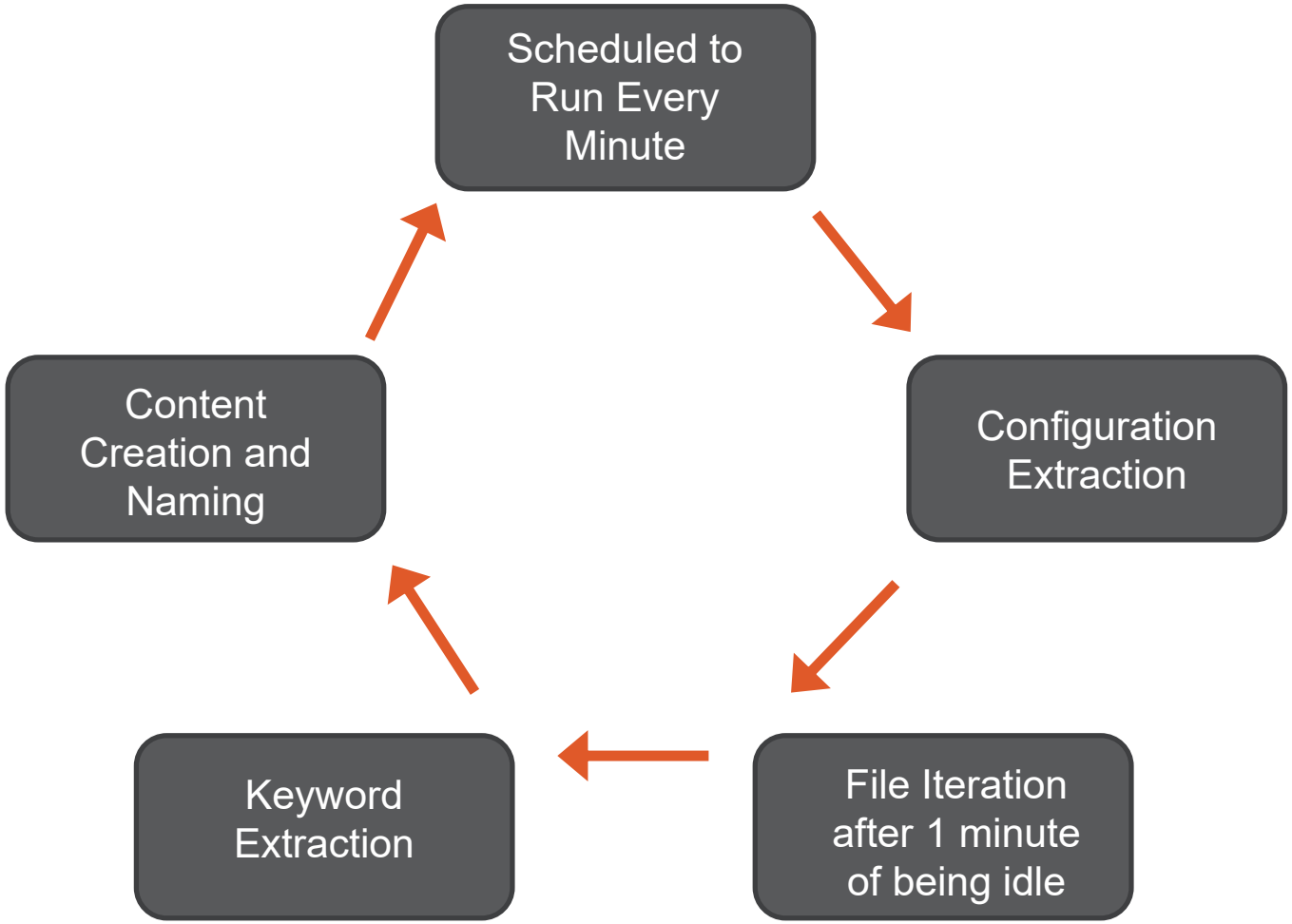


1. 5 digit COID
2. Document date in MM-DD-YYYY format
3. HCA 3-4 ID
4. Number of pages
5. Document image file path
6. OnBase correlating code for document file type

HCA Healthcare®

OnBase DrIP Pre-processor Project Goal

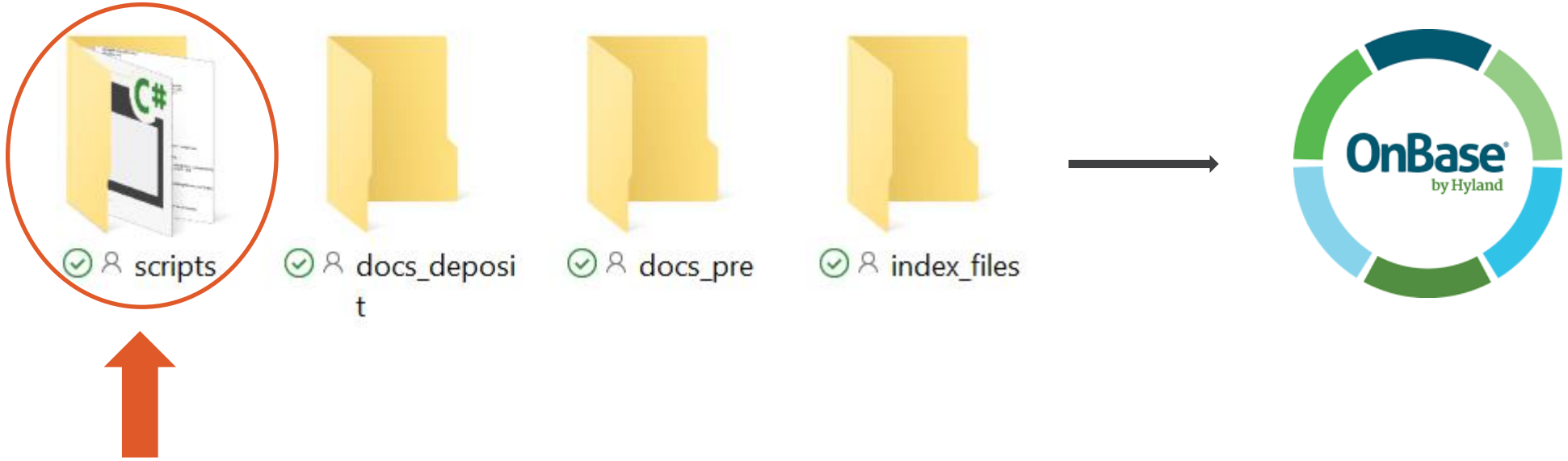
Solution – Create a generic C# program that:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

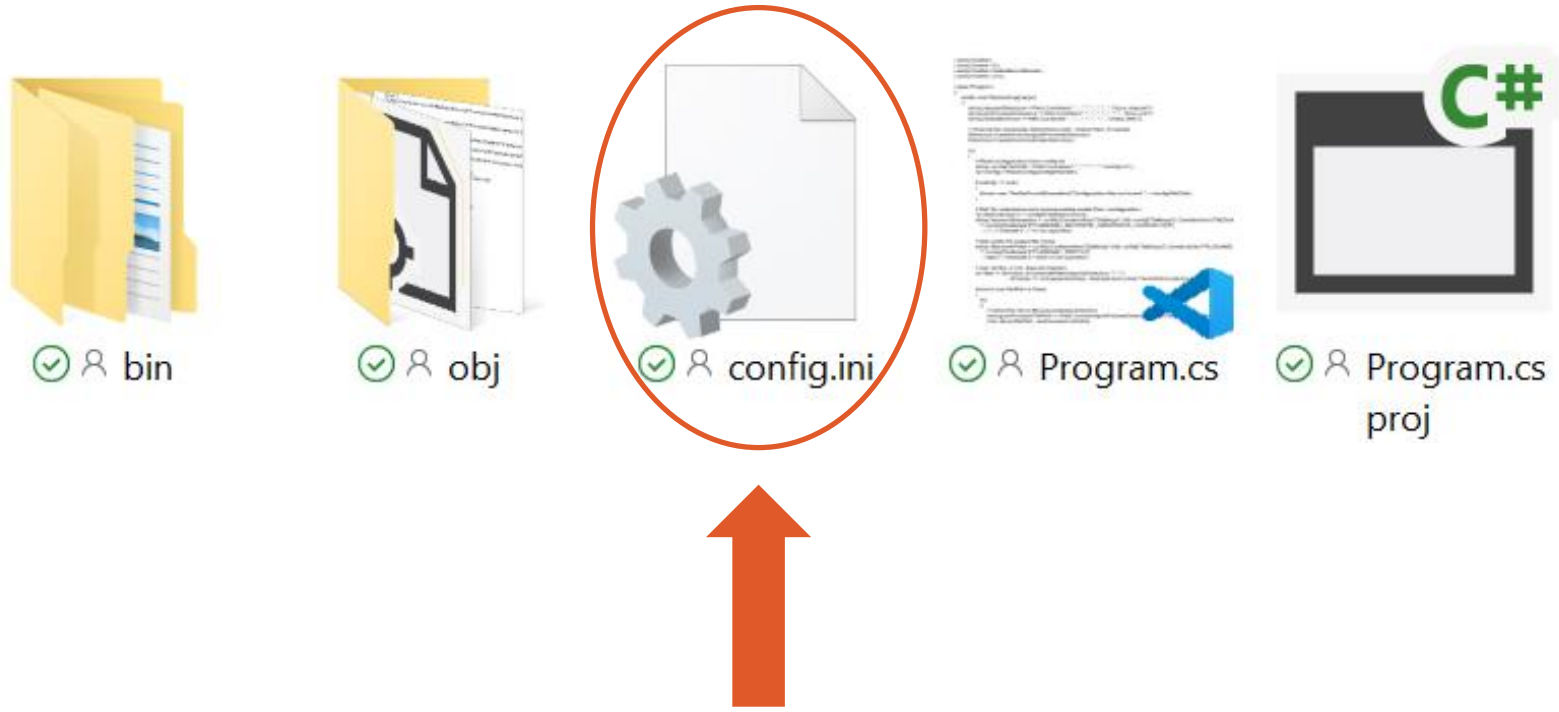
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

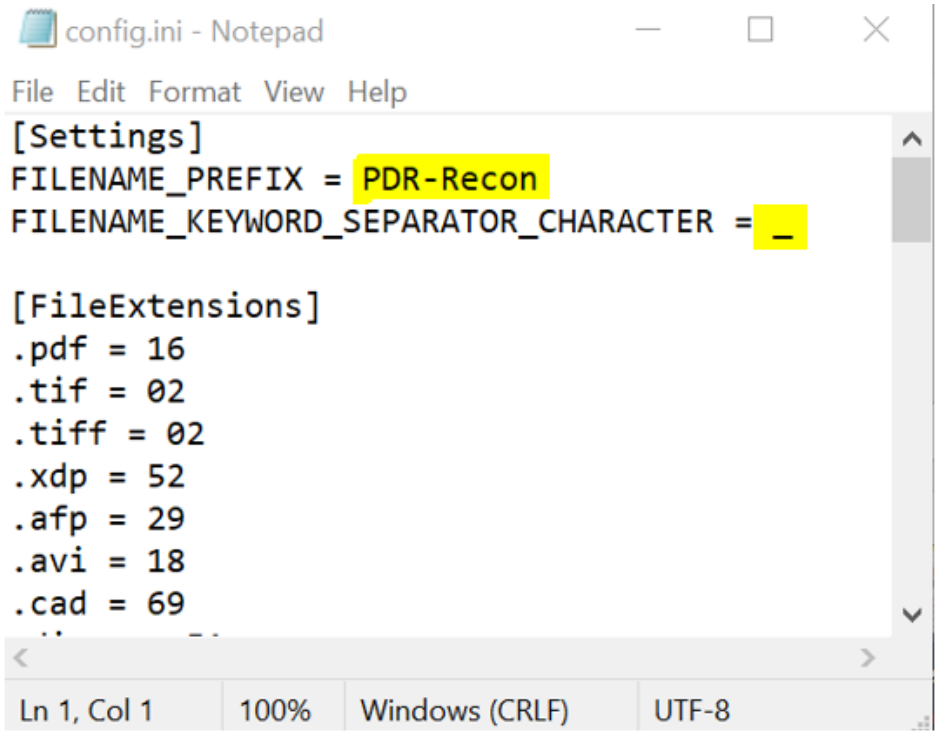
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

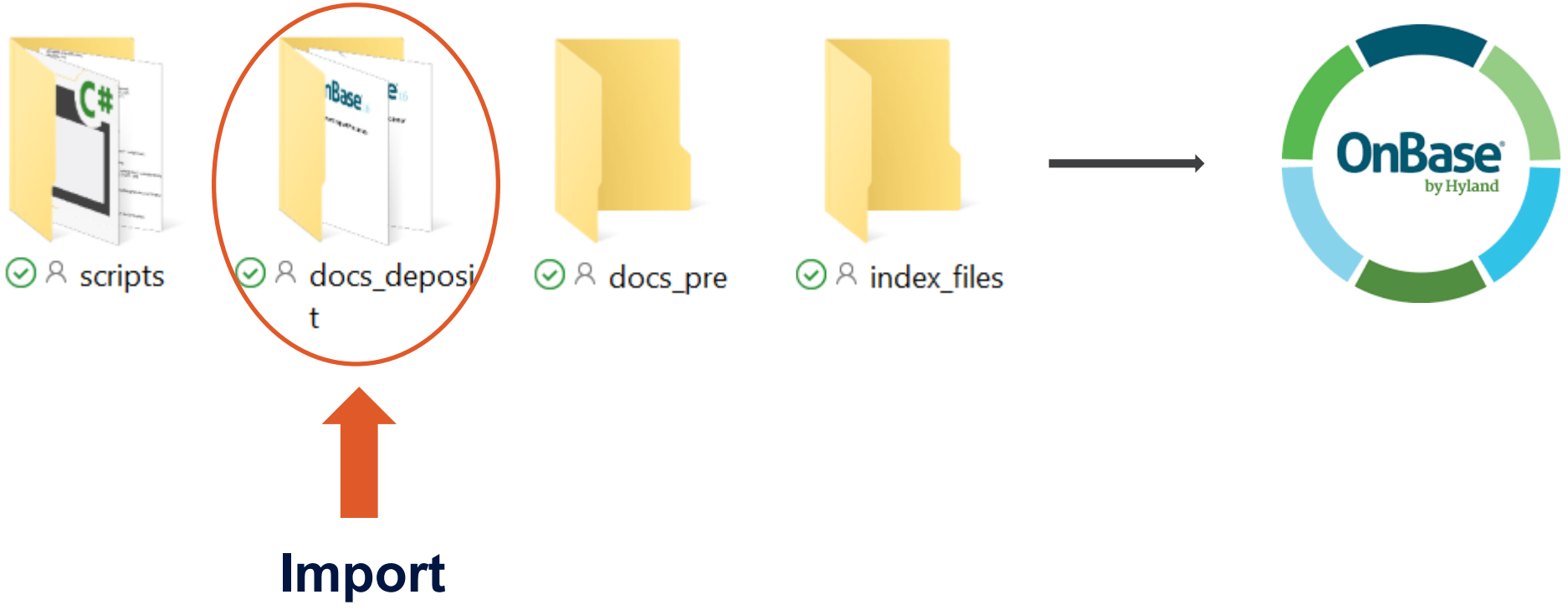
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

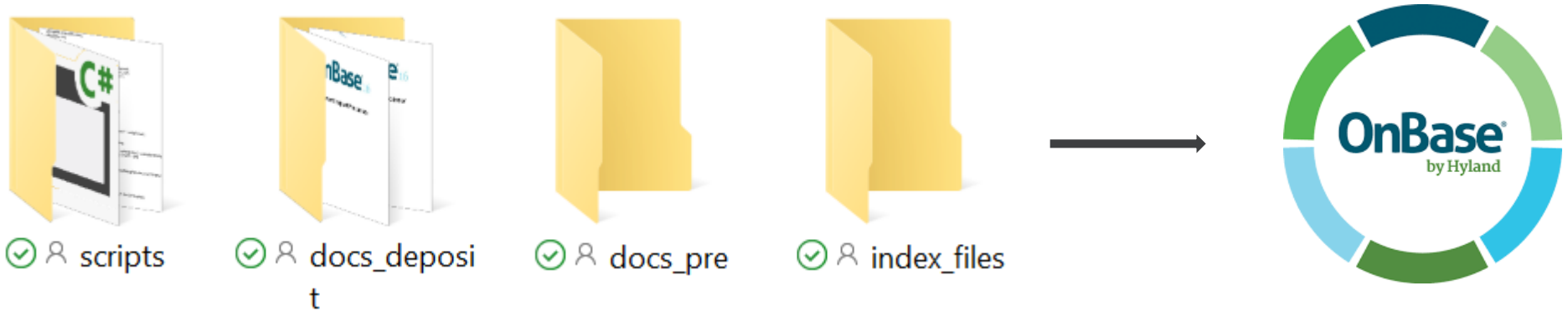
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

Solution – From the employee view:

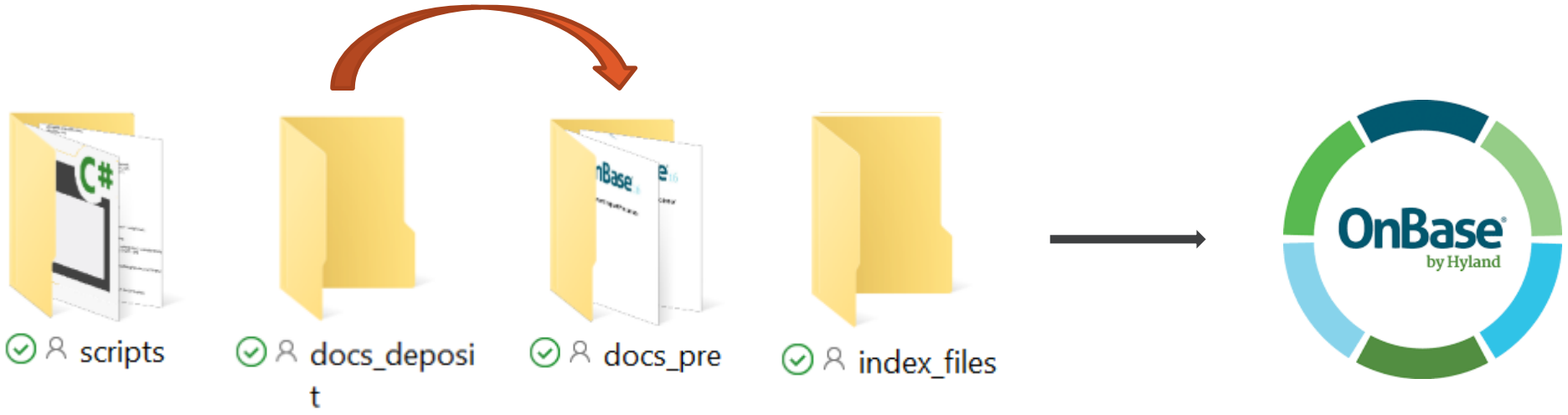


- **Program runs every 1 minute.**
- **Confirms image file has been idle for at least 1 minute.**

HCA Healthcare

OnBase DrIP Pre-processor Project Goal

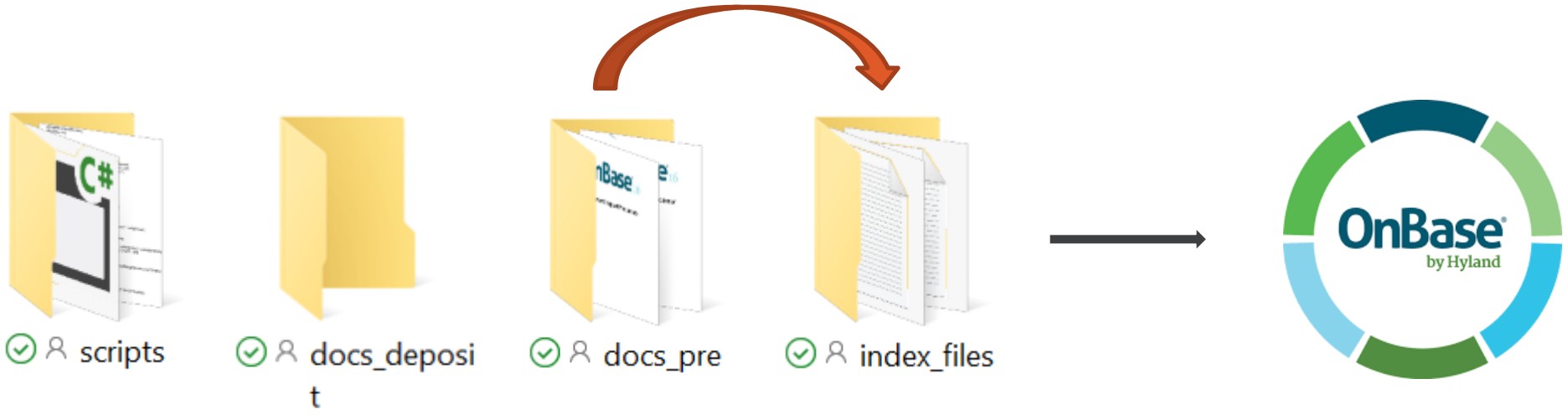
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

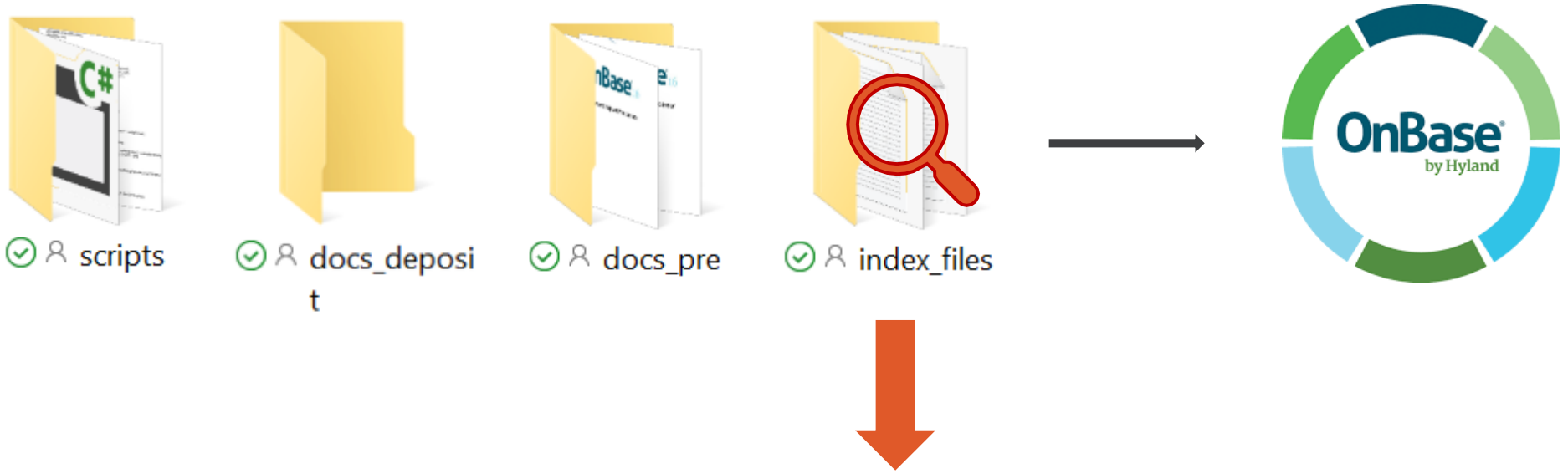
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

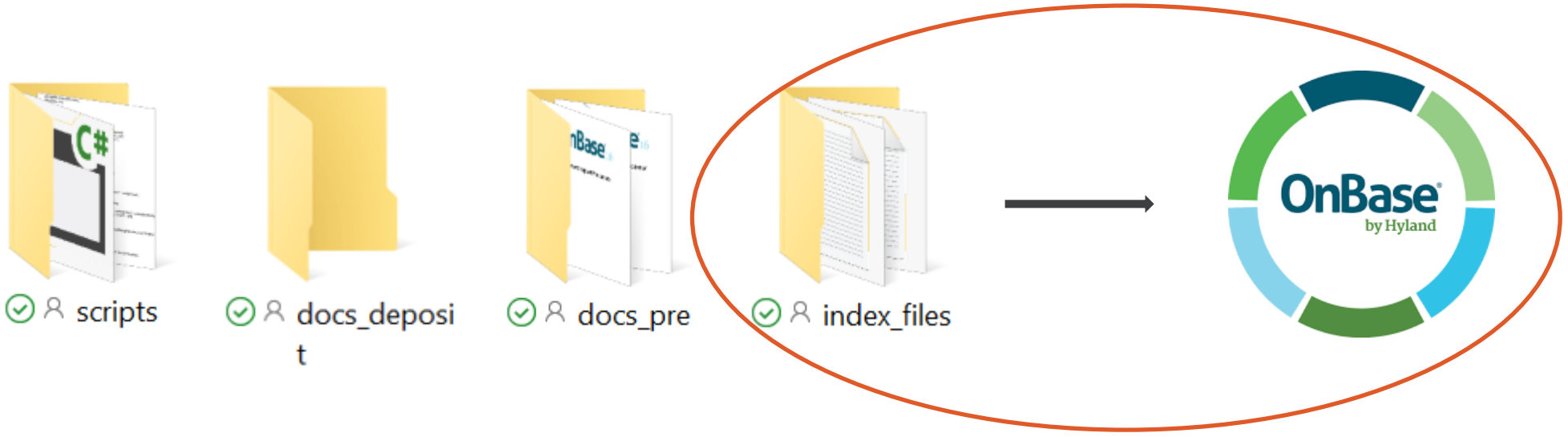
Solution – From the employee view:



HCA Healthcare

OnBase DrIP Pre-processor Project Goal

Solution – From the employee view:

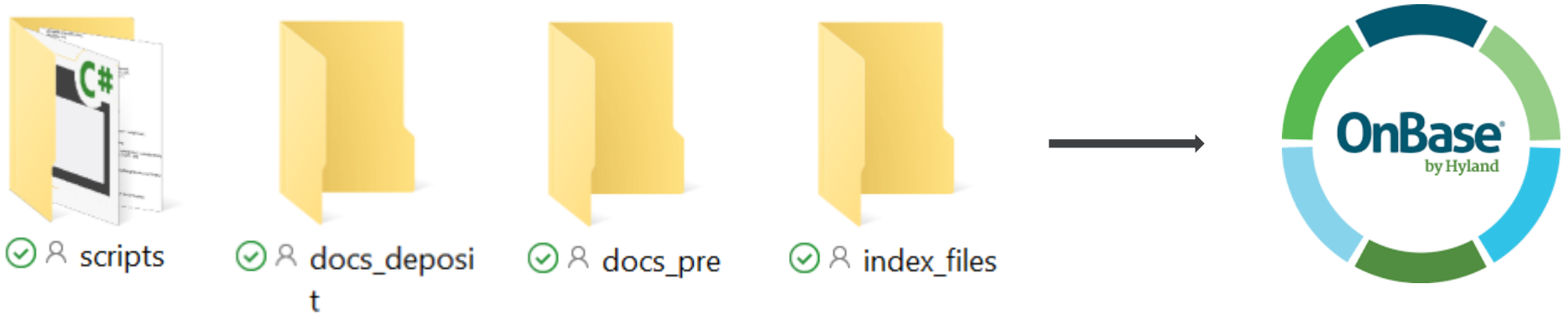


- **OnBase looks for the expected file name.**
  - **PDR-Recon_*.txt**

HCA Healthcare

OnBase DrIP Pre-processor Project Goal

Solution – From the employee view:



HCA Healthcare

Challenge Opportunities

- Time
- New language
- Pre-mature file conversion
- Automation

HCA Healthcare®

Technologies Used

- C#
- Task Scheduler
- Command Prompt
- OnBase

HCA Healthcare®

Value Added

- Avoid expensive licensing and annual maintenance costs.
- A tool for perpetuity that will be used globally.
- Increased efficiency by over 50%.
- Increased job satisfaction.
- Improved accuracy of OnBase indexing data by keying only once.
- Completed a request ticket from an OnBase customer, aimed at improving efficiencies for her role and similar positions.
- Customer will begin seeing benefits August 6th, after change freeze has been lifted.

HCA Healthcare®

Questions?

AlexLangone.com

LinkedIn: Alexander Langone

HCA Healthcare®