Internship Report

Title Page

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Master's in Health Informatics and Bioinformatics (PSM)

PSM 691 Internship

Streamline
Healthcare Solutions

Internship Manager: Richelle Kracht

Streamline HealthCare Solutions

Product Management Intern (Fall 2022 & Winter 2023)

Table of Contents

INTERNSHIP OBJECTIVES:

1. To acquire practical experience by utilizing the knowledge and technical skills that I have gained from my academic curriculum in real-world projects.
2. I plan to undertake additional training related to the organization and the healthcare industry to gain a better understanding of procedures, workflows, and related aspects.
3. Intend to leverage the resources, software, and tools provided by the company to improve work efficiency and meet project deadlines.
4. My responsibilities will include reviewing and testing scripts and use cases in the SmartCare EHR platform by following manuals and user guides to become familiar with the EHR working environment. Based on my observations, I will provide recommendations for improving healthcare outcomes.
5. Analyze and visualize healthcare data obtained from the EHR working environment to draw insights and identify trends.
6. Updating my supervisors on my progress and receiving feedback to continuously improve and increase job satisfaction.
7. To strengthen my network and enhance my communication skills by connecting with individuals both within and outside of my team and department within the organization.

INTRODUCTION:

Networking played a significant role in securing this internship for me. The PSM 662 course taught by Professor and PSM Program Director, Anirudh Chowdhary provided me with valuable information related to internship and job searches, emphasizing the importance of networking. With the help of my friend working in the Career Center, I obtained a list of potential employers and began reaching out to them through LinkedIn and email to inquire about possible internship opportunities. Christopher Babbitt, the Assistant Director of Career Center, provided guidance in enhancing my resume and conducted mock interviews to help me prepare. Through networking, I was fortunate enough to connect ████████████, the Director of Knowledge Management at Streamline Healthcare Solutions, and after a successful interview process, I was offered the Product Management Intern position.

About Streamline Healthcare Solutions:

Streamline Healthcare Solutions specializes in behavioral health and human services, with a strong focus on electronic health records and building a dependable network of partners. The SmartCare EHR is a cutting-edge platform that manages a wide range of services without requiring any third-party software. Furthermore, the platform includes advanced analytics tools that enable comprehensive analysis and reporting, leading to improved healthcare outcomes.

Streamline Healthcare Solutions is an excellent place to start a career as it offers numerous opportunities for growth and ongoing learning. The company places a high value on individual contributions and recognizes them equally alongside those of teams. The firm offers a wide range of services, including SmartCare EHR, Clinical Care Management, Business Intelligence, and more. The main objective of the company is "to assist those who require appropriate medical care, particularly with the use of technical services and SmartCare within the workplace."

Internship - During my internship, I had the opportunity to work with both the Data Analytics and Product Management teams at Streamline Healthcare Solutions. Through various trainings and my involvement in four different projects, I gained valuable knowledge and experience that enabled me to enhance my professional and personal development.

DESCRIPTION OF WORK:

As a Product Management Intern, I organized my work routine into two distinct categories, which were:

1) Trainings
2) Projects
   A. Kansas State Reporting
   B. Build Releases in Florida State

1). Trainings

During the Fall of 2022, I commenced my internship with the Data Analytics team, where I was under the guidance of ███████, the VP of Compliance. In order to better understand the company's procedures and work processes, I completed various training sessions on different services, functions, and concepts, including IT requirements through the SH University portal. I was also provided with access to Udemy Business, where I pursued additional training and certification opportunities.

My technical training included a wide range of topics, such as an introduction to SmartCare services, SmartCare database, builds and releases, billing essentials, and HIPPA. Additionally, I participated in non-technical training sessions, which focused on professional best practices, critical thinking, and problem-solving.

Resources Utilized:

Kansas AIMS User Guide AIMS Report (v2.0), AIMS Manual (v5), Kansas AIMS File Mapping, Trainings.

Portals/Tools/Software Used:

SmartCare EHR, Streamline Operations Portal, GSuite, Streamline Healthcare University, Excel and Udemy Business

2). Projects

Following the completion of my trainings, I began working on projects, starting with the Global Code Mapping project.

A. Kansas State Reporting

a. Global Code Mapping

I contributed to the Global Code Mapping project by reviewing and updating Category codes in the Global Code Mapping spreadsheet. The objective of this project was to ensure compliance with the AIMS manual V5 for Kansas state reporting. This task is crucial in the data reporting process, and it was essential to ensure that the organization submits accurate and reliable data to the state.

State Manual Code Name (Reference Only)	Category (Global Code Category)	TableName	RecordID (Add global code ID from customer environment)	ExternalCode (this is the value to be sent to the state)	External Global Code Name
GENDERIDENTITY	GENDERIDENTITY	Global Codes		1	Male
GENDERIDENTITY	GENDERIDENTITY	Global Codes		2	Female
GENDERIDENTITY	GENDERIDENTITY	Global Codes		3	Transgender Female (biological male identifies as female)
GENDERIDENTITY	GENDERIDENTITY	Global Codes		4	Transgender Male (biological female identifies as male)

Importance:

Compliance and Data Standardization: The File Mapping and Global Code mapping are typically defined by the state or federal agency, and compliance with these mappings is mandatory. Reviewing these mappings ensures that the organization is following the required standards and guidelines and avoids potential penalties for non-compliance ensuring that the data is consistent and can be easily shared and analyzed.

Process Efficiency and Data Integrity: Improves process efficiency by ensuring that data is mapped correctly, reducing errors, and minimizing the need for data correction or rework enabling data integration as well as improving the data quality.

b. Kansas State Reporting

Validated, reviewed and tested the Smartcare EHR environment for Kansas State Reporting, which involved setting up AIMS report, workflow, data mapping, and reporting. Throughout this project, I gained a comprehensive understanding of how to set up procedure codes for clients, create episodes for new clients, and update information for existing clients while also learning about the workflow and reporting process.

Major findings:

1. Two user guides for AIMS Reporting with the same name, but different instructions for setting up clients were available.

1.0 Setting Up for AIMS Report

1.1 Setting up for definition of Enrolled vs. Non-Enrolled clients

XSetAIMSKansasStateReportingID configuration key - if your agency is using episodes to define your state reporting (this is recommended) this key should be set to 'ClientEpisodeID.'

User must identify the Procedure code Id in the **xKansasAIMSEnrolled** Recode category for all procedure codes that a client will receive after admission to be considered as Enrolled.

Client is considered Non-Enrolled after registration date in Episodes tab of client information, until they have a service with the status of 'Show' where the procedure code on the service matches a procedure code ID from the **XKansasAIMSNonEnrolled** Recode Category.

1.0 Setting Up for AIMS Report

1.1 Setting up for definition of Enrolled vs. Non-Enrolled clients

User must identify the Procedure code Id in the XAIMSENROLLED Recode category for all procedure codes that a client will receive after admission to be considered as "Enrolled".

Client is considered Non-Enrolled after registration date in Episodes tab of client information, until they have a service with the status of 'Show' where the procedure code on the service matches a procedure code ID from the XAIMSENROLLED Recode Category.

There is also an XAIMSPENDING Recode Category that can be used to define clients who are in pending status. It would also require procedure code IDs and if client has one of these services provided, but none from XAIMSENROLLED within the episode, they are considered Pending. At this time, High Plains has chosen not to report Pending status, so this recode category will remain blank.

2. Incompatibility between user guide and SmartCare environment includes the following
   - Missing fields & codes, and extra fields & codes
   - Insufficient details in the workflow
   - No provision of link in the manual for data mapping
   - Different reporting environment etc.

3. Differences between User guide and SmartCare EHR are as follows
a. Setting Up – Procedure Codes

User Guide	SmartCare EHR Environment

1.Setting Up
  a. Procedure Codes
     Customs field Included
      No Bundle codes
	
	Not included
	Included

User Guide
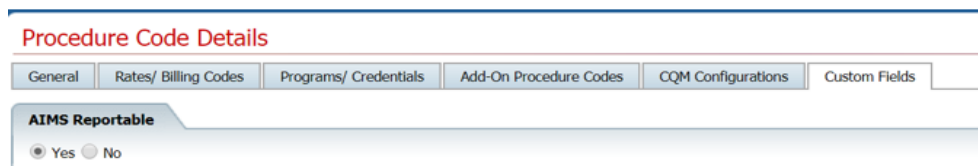
SmartCare EHR

b. Workflow – Client Information

| User Guide	SmartCare EHR Environment

1.Workflow
   a. Client Information
      Hospitalizations & Timelines Included
       Referral
       Not included
	
	Not included
	External Referral
	Reporting field included

User Guide

SmartCare EHR

c. Running AIMS report - To run the report, the user needs to access My Reports Banner within the My Office Tab. However, the screenshot provided does not match the current environment.

User Guide

SmartCare EHR
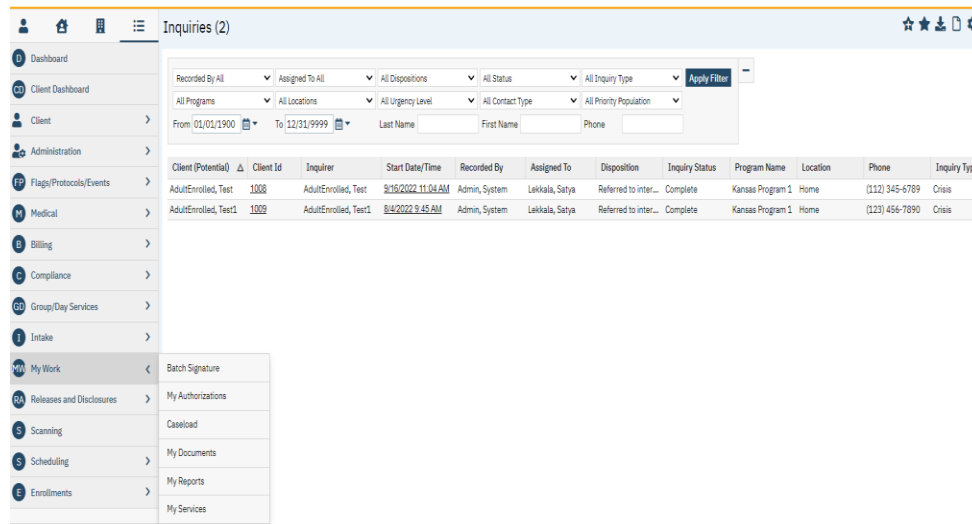
Challenges:

1. Difficulty in navigation in the SmartCare environment due to absence of necessary fields and codes.
2. Limited access to certain fields.
3. Working Remotely.

Recommendations:

1. Simplifying the reporting process by reducing the number of steps required to complete the process, providing clear instructions, flowcharts, screenshots and using a straightforward interface to make it user-friendly.

2. Providing support to ensure user understand the reporting process by providing hyperlinks, online resources, user manuals, and user forums.
3. Inclusion of hyperlinks of the resources and Video trainings on complicated steps for carrying out with least supervision.
4. Provide timely feedback to users on their submissions to ensure that the data submitted is accurate and complete.

2). Build Releases in Florida State

In Winter 2023, I started my Product Management internship under the supervision of Director of Knowledge Management, Richelle Kracht. As part of my responsibilities, I analyzed and visualized data associated with Major Builds and Hotfix builds that were released in Florida state.

a. Analysis and Visualization of Tasks released in the builds of Florida State

Objective: To analyze and identify any potential correlation that exists between the hotfixes that were subsequent to the release of the Florida State Major builds.

Task: Creation of Pivot Tables and charts/graphs in excel to demonstrate the quantity of tasks in the released builds (Major builds and Hotfixes) from January 2021 to February 2023.

Action: I processed the data by removing any duplicates and arranged it by year and month to facilitate a more efficient analysis. Using Excel, I examined the data by generating Pivot Tables and producing various Pivot Charts, including bar charts, donut charts, pie charts, and line graphs.
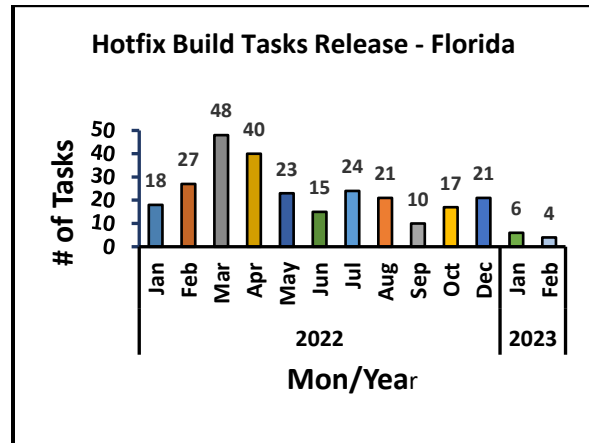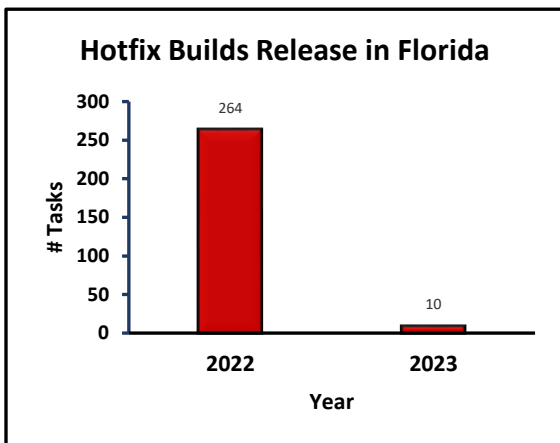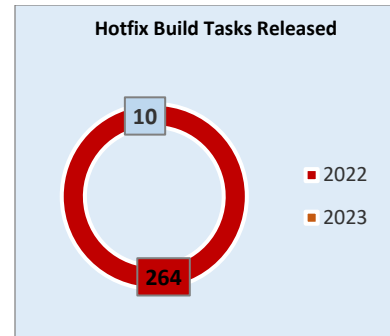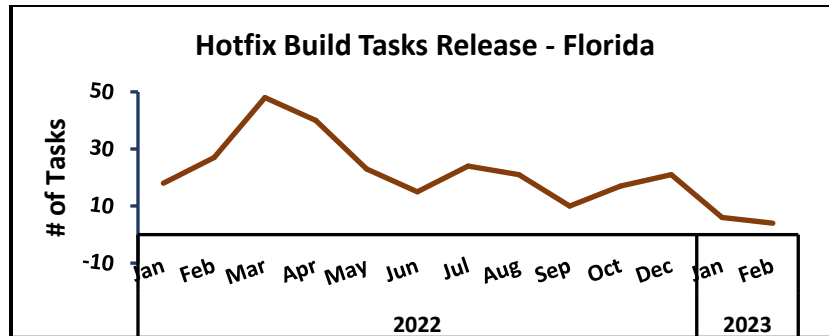
Result/Outcome:

Total Builds Count
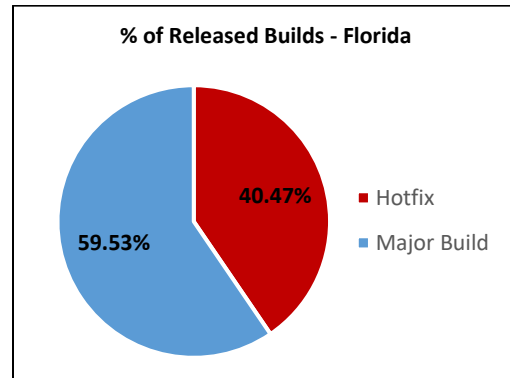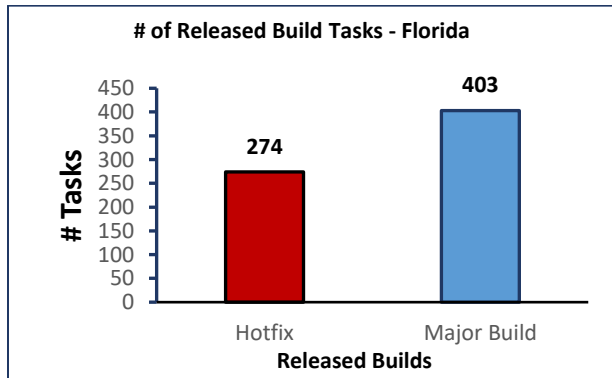
Major Builds - January 2021 to February 2023
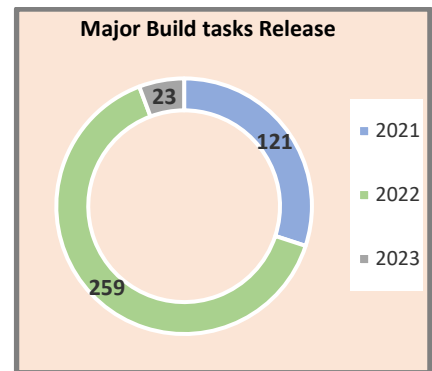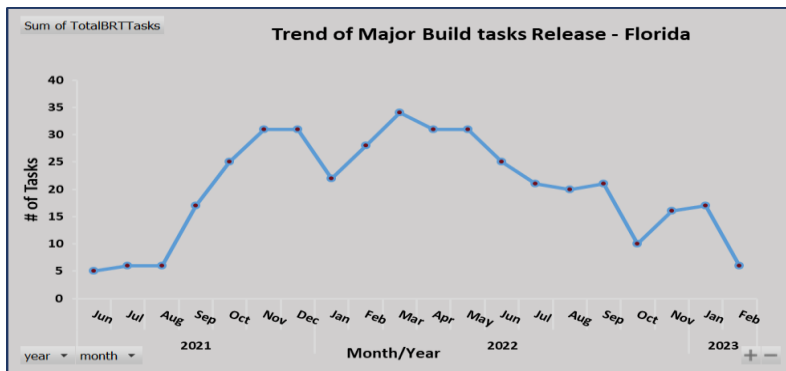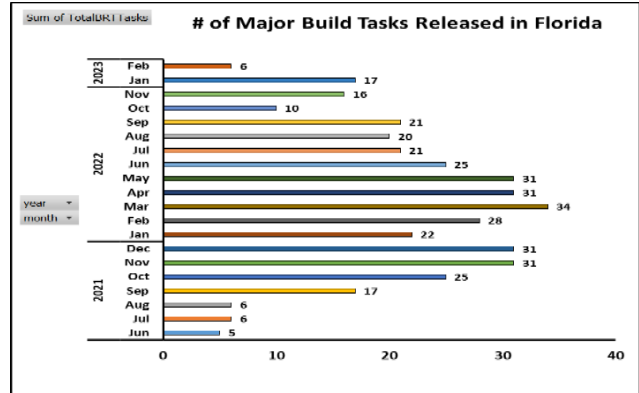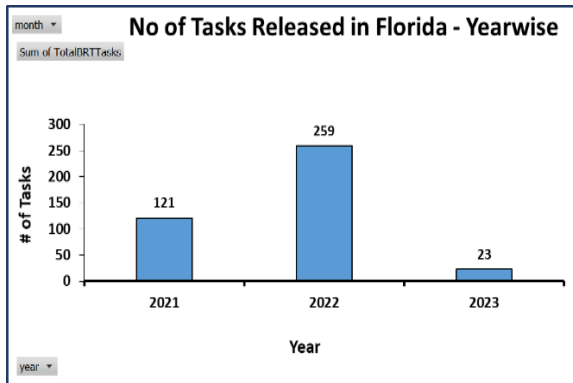
Hotfix - January 2022 to February 2023

Hotfix Build Tasks Release - Florida

Hotfix Build Tasks Released

Interpretation:

Between 2022 and 2023, the cumulative count of tasks released for Major builds in Florida State surpassed that of Hotfixes with 282 and 274 tasks, respectively. The month of March 2022 observed the greatest number of tasks released for both Major builds and Hotfixes, with 34 and 48 tasks, respectively.

b. Analysis and Visualization of different types of modules released in the Major Builds

Objective: To analyze and identify the frequency of different types of modules released for the Major Builds.

Task: To illustrate the frequency and number of tasks in various modules released in the Major builds from June 2021 to March 2023, data was compiled and Pivot Tables and Charts/graphs were created in Excel.

Action: The data from various spreadsheets was compiled into a single Excel file, and any duplicate entries were reviewed and eliminated to streamline the data. To facilitate analysis, the data was then arranged by year and month.

Using Excel, I examined the data by creating Pivot Tables and generating Pivot Charts such as bar charts, histograms, and side-by-side bar charts to present the information in a visually appealing and easy-to-understand format.

The analysis of the data was conducted in several stages. Firstly, I examined the total count of modules released each year and then further analyzed the number of modules released in each month. Secondly, I determined the various types of modules that were released for the Major builds each year. This helped in identifying any trends or changes in the types of modules released over time. Finally, I generated a new Pivot Table and charts to illustrate the most frequently released module type for the Major Builds. This provided a clear understanding of the distribution of module types and helped in identifying the areas that required more focus and attention.

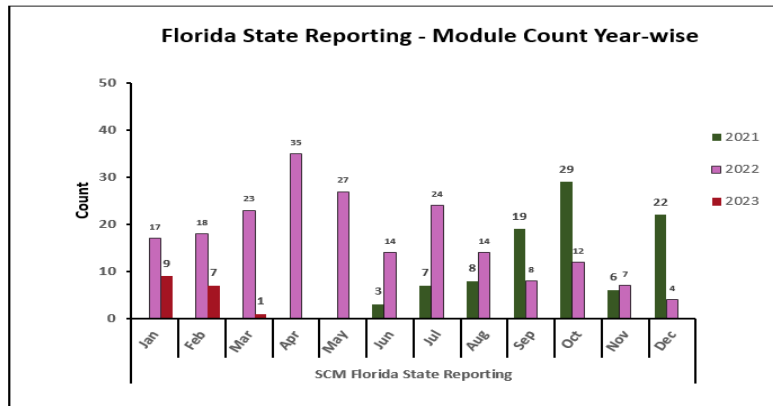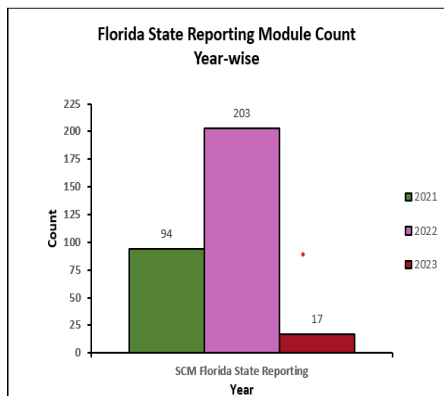**Result/Outcome:**

Total number of modules released for the Major Builds in the Florida State from June 2021 to Mar 2023
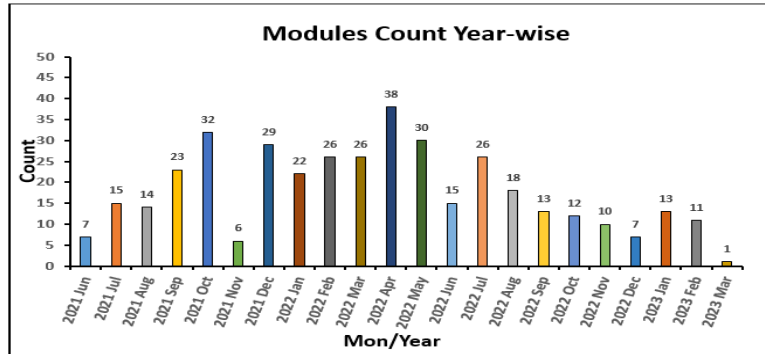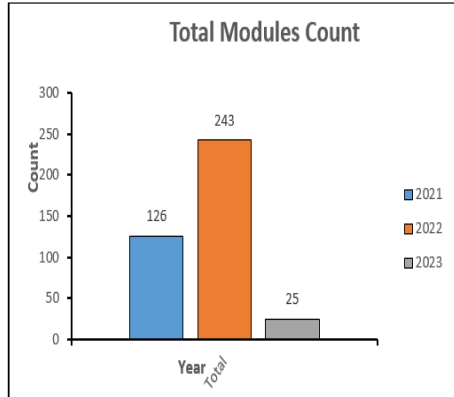
Number of different types of Modules relased Year-wise
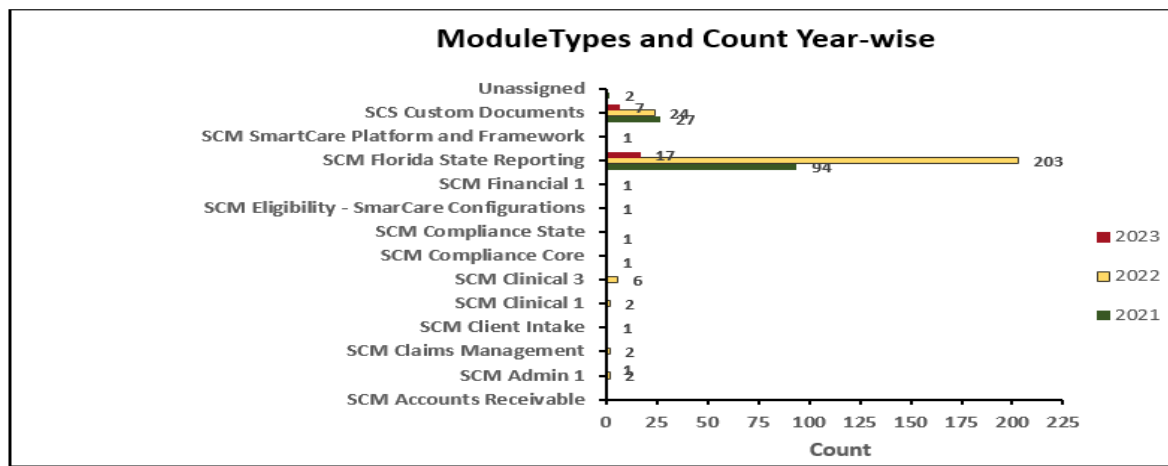
SCM Florida State Reporting Module Count Year-wise

Interpretation:

Based on the analysis, it was determined that the total count of modules released for Major builds in 2021, 2022, and 2023 were 126, 243, and 25, respectively.

Further analysis revealed that the month of April 2022 recorded the highest number of modules released, followed by October 2021. This information can be useful in identifying the peak periods of module release and planning for resource allocation accordingly.

Upon examining the data, it was found that two specific module types, namely SCM Florida State Reporting and SCS Custom Documents, were released every year as part of the Major Builds.

Among these, SCM Florida State Reporting was the most frequently released module type. It had the highest count of 9 in January 2021, 35 in April 2022, and 29 in October 2023. This information can be helpful in understanding the most crucial module types for the organization and prioritizing their development and deployment.

INTERNSHIP SDISCUSSION:

As a Product Management Intern at Streamline Healthcare Solutions, I have had the privilege of gaining valuable real-world experience. Throughout my time at the company, I have been able to apply the knowledge and skills that I acquired through my academic coursework, such as Introduction to Health Informatics, Information Visualization, Knowledge Discovery and Data Mining, to real-world situations. Moreover, the PSM courses Seminar, Ethics and Internship have been instrumental in preparing me for my role as an intern. They have provided me with the necessary tools and knowledge to understand the work culture and meet deadlines effectively by adhering to the organization's standards.

Professor, Anirudh Chowdary is always available to clarify my doubts and provide guidance through in-person meetings. His advice and direction were valuable in helping me utilizing the internship offer from Streamline Healthcare Solutions wisely. Christopher Babbitt from the Career Center provided me with crucial support throughout the application process, including reviewing my resume and cover letter, and conducting mock interviews starting from my internship search.

I feel fortunate to have had Richelle Kracht as my supervisor during my internship at Streamline Healthcare Solutions. She is an exceptional leader who creates a welcoming and flexible work environment that allowed me to feel comfortable and thrive in my role. Our weekly touch-base meetings were extremely helpful in understanding the company's functions and how to proceed with my work. Richelle assigned tasks in manageable chunks, which prevented me from feeling overwhelmed and stressed. Her constant encouragement and constructive feedback motivated me to complete tasks and provided me with valuable recognition of my contributions. In addition to her support during my internship, Richelle has also provided me with recommendations for available full-time positions within the organization. I am delighted to report that she played a key role in my promotion as a full-time employee, which is set to begin in May 2023. I am grateful for her support, encouragement, and guidance, and I look forward to continuing to learn and grow within the organization.

In addition, the projects have also helped me to improve my time management and prioritization skills instilling a sense of responsibility and dedication towards the work. Furthermore, working in a team environment has taught me the importance of collaboration and teamwork. The technical skills and the knowledge gained on the different services and functions of the organization enhanced my perspectives in looking into a problem with better recommendations and improvements. Creating client episodes in SmartCare EHR and pivot tables and various charts are the best illustrations of my technological skills development.

By implementing effective planning, prioritizing tasks, meeting deadlines, receiving constructive feedback and support from my supervisor, █████████, and adhering to ethical standards, I successfully achieved the objectives of my internship. This experience has been invaluable to my personal and professional growth, and I am grateful for the opportunity to learn and develop new skills that will benefit me in my future career endeavors.

ACKNOWLEDGEMENT

I would like to express my gratitude and admiration to everyone who has been involved in my incredible journey. I particularly want to acknowledge the invaluable guidance and support provided by Dr. Guenter Tusch, Anirudh Chowdhary and Christopher Babbitt, who have assisted me throughout my internship search until now.

I am grateful for the opportunity to have collaborated with Richelle Kracht, who provided encouragement, guidance, and unwavering support during my internship. Additionally, I am appreciative of her recommendation for me to work full-time at Streamline Healthcare Solutions. I also thank ████████████████ from Data Analytics team for comprehending me about the SmartCare EHR working environment.

Overall, it is an enriching experience which has played a vital role in both my personal and professional development, and I am excited about the prospect of contributing even more to the success of the company. I extend my heartfelt appreciation to Streamline Healthcare Solutions for granting me this opportunity.

Supervisor's Signature:

Richelle Kracht,

Director of Knowledge Management