SUMMER INTERNSHIP AT GLAXOSMITHKLINE

FOR

DR. S. THANGIAH

BY

CHIBUIKE EJIM

DATE

SEPTEMBER 16, 2004

GlaxoSmithKline
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INTRODUCTION

My summer internship was with GlaxoSmithKline (GSK) – Consumer HealthCare Division, at the North American headquarters in Pittsburgh, Pennsylvania. The internship ran from May 17, 2004 through August 20, 2004. GlaxoSmithKline is a world leading research-based pharmaceutical company. Its mission is “to improve the quality of human life by enabling people to do more, feel better and live longer” (GlaxoSmithKline Plc).

Headquartered in the United Kingdom and with operations based in the United States, the company is one of the industry leaders, with an estimated seven percent of the world's pharmaceutical market. GSK’s Consumer Healthcare Portfolio comprises over-the-counter (OTC) medicines, oral-care products, and nutritional healthcare drinks. These industries are among the market leaders (GlaxoSmithKline Plc).

INTERN'S REPORT

Corporate History

GlaxoSmithKline is a public limited company (Plc), incorporated on December 6, 1999. On December 27, 2000, the company acquired Glaxo Wellcome Plc and SmithKline Beecham Plc, by merger. The company, its subsidiary and associated undertakings, constitute a major global healthcare group engaged in the creation, discovery, development, manufacture and marketing of pharmaceutical and consumer health-related products. Dr. Jean-Pierre Garnier is the company’s chief executive officer (GlaxoSmithKline Plc).

Corporate Staff

I worked in the Central Knowledge Management (CKM) group, a subdivision of the Information Technology (IT) Department. My team was comprised of Larry Schwertz, manager and supervisor; Business Analysts, Aimee Schmidt and Rich Kocur; and Technical Analyst, Marcha Van Wyk, my second supervisor.

The goal of CKM is to drive informed decision makers. The major focus is on Business Intelligence (BI), a term that depicts the application of IT solutions to solve business problems. BI is the bridge between information and information users, by enabling the latter to serve their own information needs without relying on custom programming or special queries. The BI software package in use is Cognos Series 7; it comprises a variety of powerful applications.

Cognos Applications

On the first day of my internship, Monday, May 17, 2004, following orientation, I attended a CKM meeting. We discussed ways to develop CKM standards for the Cognos applications, to enable effective navigation by customers. For the first three weeks of my internship, I attended on-hands, Cognos training classes, and I also read tutorial books on the Cognos applications. Examples of the classes that I attended were GSK Executive Dashboard.
Training and PowerPlay Web Explorer Training. These classes were taught by GSK associates and GSK contractors. The following is a short description of the most frequently used Cognos applications.

**Cognos PowerPlay**

*Cognos PowerPlay* is at the center of the Business Analysis process. A PowerCube is a container of enterprise data presented in a format that information users can easily interpret and analyze. Information users access the PowerCubes using the BI application, *PowerPlay Web Explorer*. *PowerPlay* allows users to maneuver through enterprise data contained in the cubes, from which users create custom views and reports. *PowerPlay* is a tool of powerful and sophisticated data analysis, viewing, and sharing (PowerPlay Web Explorer – Series 7 11).

![Figure 1.0 – Shipments History for Rx Business Unit](image)

Figure 1.0 displays a *PowerPlay* diagram. As shown, the data is represented multidimensional and graphically. The icons at the bottom are *PowerPlay* tools that we use to customize data.

**Cognos ReportNet**

*Cognos ReportNet* is the next generation Enterprise BI platform. It provides state-of-the-art report coverage for personalized and timely distribution. In addition, it provides a web-based report authoring that is multilingual, but yet, it has role-based functions.

Furthermore, *ReportNet* works on different platforms such as Windows, UNIX, and also, application servers. It also possesses the ability to integrate into modern web architectures like Soap/WSDL, Java and XML. To sum up, *ReportNet* is the industry’s first complete, flexible, and adaptive authoring environment, for fast, easy report building and modification (Cognos).

**Cognos Upfront Portal**

*Cognos Upfront Portal* provides a single point of entry for enterprise-wide information. Upfront organizes links to enterprise information, known as *NewsItems*, in a hierarchical folder structure known as NewsBoxes (PowerPlay Web Explorer – Series 7 32).
In addition, *Upfront* displays links to *Cognos* BI view and reports, as well as links to any enterprise information source such as spreadsheets, documents, graphics, and websites. Also, users manage their own *NewsBoxes* within *Upfront*, i.e. adding, copying, organizing, and deleting *NewsItems*. The figure below illustrates a sample *Cognos Upfront NewsBox*.

![Figure 1.1 – Cognos Administrator’s NewsBox](image)

**Cognos Visualizer**

*Cognos Visualizer* is the application used to create *Executive Dashboard* pages. The *Executive Dashboard* is the main point of entry into GSK’s BI information. The *Dashboard* contains an assortment of gauges and indicators called *visualizations*. The main *Dashboard* screen is divided into four main quadrants: *Month-To-Date (MTD) Sales*, *Shipments*, *Total Consumption*, and *Point-of-Sale (POS) Consumption*. Each visualization can be further explored or used to launch associated multidimensional reports. The *Dashboard* visualizations have also been created with links to alternate visualizations. Alternate visualizations display GSK data by *Business Unit* and by *Investment Type*. The diagram below illustrates the *Executive Dashboard* “homepage.” Links to different visualizations are located in the top-left corner (GSK Executive Dashboard – Series 7 V2 18).

![Figure 1.2 – GSK Executive Dashboard Homepage](image)
Redesigning the Executive Dashboard

My first assignment involved working with Cognos Visualizer. I implemented the interface, whereby users navigated from the Executive Dashboard “homepage” to any brand “page.” The data source came from the Shipments History Performance Allocation PowerCube. I created drill-down levels for YTD Shipments for All Brands. The drill-down hierarchy started from the All Brands level, to the Business Unit (BU) level, to the Brand Name level under each selected BU.

A drill-down refers to the process of clicking on an item label to take one down a level to view the items on the next level. I designed the interface as cluster bar graphs of “vs. YAGO (Year Ago)” against “vs. Budget.” Figure 2.0 illustrates the All Brands level that contains different Business Units (BU). Clicking on any BU label, i.e. drill-down, takes us to the Brand Name level. The new level displays the brands under that BU. We continue the drill-down process until we reach the lowest level, beyond which no further drill-down is possible. Then, we reverse the process, i.e. drill-up, until we return to the top most level.

![Figure 2.0 - YTD Shipments for All Brands](image)

However, there are some apparent problems in this screenshot. The red arrow pointing right indicates that there are more BUs that are not shown. Actually, the BUs fit on the screen, but then, the graph is cluttered. To solve the problem, we go directly to the PowerCube data source and filter out unnecessary BUs so that they do not appear on the graph. An alternative solution is to create a separate page for each brand. Van Wyk, Schwertz, and I met to decide the best course of action. As a result, we went with the alternative solution because the “filtering” approach was time-intensive and could distort the PowerCube. I implemented the solution.

Phase I: Implementing of the Revised Executive Dashboard

Cognos Visualizer is object-oriented. Thus, we begin with a blank sheet. Then, we insert panels on which we place objects that we create. Objects include charts, textboxes, and hot buttons. First, I imported the Executive Dashboard with BU Views sheet that served as the template from which I created other pages. Next, I changed the border and shading settings.
Then, I renamed the page to correspond with the brand. I reset the filters to display data relevant to the brand in view.

Afterwards, I created viewpoints. Viewpoints are analogous to page favorites. Each Dashboard page is divided into sections. Viewpoints “bookmark” various sections of information for future use. Thus, rather than users scrolling back and forth in a page, they instantly zoom into any view. In addition, I reset the actions associated with each hot button to be specific to a chosen brand. Table 1.0 shows the different Brand Names that I created pages for. They are grouped by Business Unit.

<table>
<thead>
<tr>
<th>BUSINESS UNIT</th>
<th>BRAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>General OTC</td>
<td>Abreva, BC, Ecotrin, Goodys</td>
</tr>
<tr>
<td>GI Calcium</td>
<td>Beano, Citrucel, Oscal, Tums</td>
</tr>
<tr>
<td>Smoking Control</td>
<td>Nico Lozenge, Nicoderm, Nicorette OTC</td>
</tr>
<tr>
<td>Oral Care</td>
<td>AquaFresh, AquaFresh Toothbrush, Polident Cleanser, Poligrip, Sensodyne</td>
</tr>
<tr>
<td>Rx Portfolio</td>
<td>Aclovate, Cutivate, Oxistat, Temovate</td>
</tr>
</tbody>
</table>

Table 1.0 – Chibuike Ejim, 2004.

**Phase II: Creating the Links**

The second phase of the project was to connect the brand pages so that users can easily navigate through the entire Executive Dashboard. I used a similar drill-down effect for this. However, I created links on each page so that it is possible to go from the Executive Dashboard “homepage” to the lowest level and back, by simply clicking on links.

First, I inserted panels on each brand page. Next, with relevant link names, I placed textboxes on the panels. Then, using the Properties option-box, I activated these links as follows: since every page consists of viewpoints, the links technically lie in the viewpoints. Thus, clicking on a link prompts a viewpoint containing the destination to appear on the screen.
Initially, this project was quite tedious. Thus, it required paying extreme attention to details because the final result was going to be used by associates and clients alike. However, once I mastered the concept, it became a fun activity. Time wise, including corrections and testing, the project took about two weeks to complete.

**Customizing a Point-of-Sales (POS) Analysis Report**

My next assignment was to create a new Point-of-Sales (POS) Analysis report using ReportNet. A POS Analysis report summarizes the performance of the various GSK brand names, with respect to sales and consumption. The brands are grouped by Business Unit. For instance, from the report, one can compare GSK’s sales for the current month – for a particular Business Unit – to sales for the same month during the previous year.

The first step involved creating the relationships that constitute the framework of my report. Figure 3.0 displays the different aspects of these relationships. The Insertable Objects box, in the top-left corner, indicates the data source of my report, namely, POS. The data source contains different tables that I used in building the report. Also, the Data Items box contains the queries that I created, by using various attributes from the available tables. In addition, I created a filter by joining two tables, POS and GSK Total Consumption, employing their common attribute, Brand_Desc. The Properties box, on the bottom-left corner, shows the attributes of a selected Data Item.

The next step was to define the appearance of the report. I worked in the Page Explorer mode. This step involved grouping the Brand Names according to BU, enabling arithmetic capabilities such as summation, as well as formatting the report. For instance, the numbers were shown as percentages. Generally, I used several ReportNet built-in tools to enhance the report. Figure 3.1 below shows the formatted appearance of the report.
Afterwards, I executed the report and generated output as shown in Figure 3.2 below.

While building this report, I experienced some setbacks, because, on some occasions, it produced incorrect data. This was a problem because the POS Analysis report is often used by senior management. Eventually, with Van Wyk’s ingenuity, we identified and resolved the problem. It took three weeks to build the POS Analysis report.

Automating the Execution of all Sales and Consumption Reports

This project was the most challenging, yet exciting one. I worked with Van Wyk on this project. The task was to automate the execution of all sales and consumption reports. The reports are used by different departments, so they must be up-to-date and prompt. In addition, these
reports are run on different schedules, i.e., daily, weekly, and monthly. The schedules are interdependent, and they are stored in an application called Maestro. Each report is regarded as an event, identified by an event-name.

The project involved writing a Java program. Van Wyk was not familiar with Java, so I provided a brief but adequate tutorial, thanks to Dr. Thangiah’s Java class. The program utilized ReportNet’s built-in methods. Upon compiling and running, our program received an event-name from Maestro as the argument. The main method was divided into two sections of code. The first section invoked a built-in method, Logon() that automatically logged in to ReportNet as the administrator. Logon() received the administrator’s credentials - username and password – as parameters. The other section invoked a user-defined method EventHandler() that accepted the event-name – received from Maestro during compilation - as a parameter. EventHandler(), in turn, called another built-in method, trigger() that executed the report in ReportNet that belonged to the event-name.

We had a timeline of four days to complete the project, so there was much overtime involved. Fortunately, we met our timeline. Unfortunately, I am not permitted to display the Java program because it is considered GSK confidential information. After completing the project, I created flowcharts, using Microsoft PowerPoint, for the different report schedules. Each schedule is comprised of a set of smaller jobs that are executed sequentially.

![Flowchart of Shipment Day Zero Schedule](image)

Figure 4.0 – Shipment Day Zero Schedule Flow

Figure 4.0 below shows the Shipment Day Zero Schedule Flow. Each brown box represents a job; it displays a short description of the job, the job ID, the time taken to execute in minutes, and its data source PowerCube. The green boxes display, either the pathname of files a job requires to execute, or a prerequisite schedule that must be completed before the job executes.

Creating and managing the One Box Data Project

On my last assignment, I worked with the Unsaleables group in the marketing department. The project, One Box Data Project, involved creating and managing two databases
to keep track of returned items. The *Unsaleables* group oversees the Rx *Business Unit*. Project background goes thus: After GSK ships out its brands to customers, some products are periodically returned, either upon expiration or for other reasons. Previously, a separate company, GSI, handled this process acting as the middle man. However, because GSI has several stations, it became difficult to keep track of the returned items. This translates into a loss on GSK’s part because of over-crediting extended to customers. To curtail the loss, GSK hired another company, GENCO, which is centrally located, and has a more advanced database system.

I commenced by using *Microsoft Access* to create two identical databases to keep track of these “unsaleables” during 2003 and 2004. Both periods are subdivided into 24 cycles each: the cycles were originally stored in *Microsoft Excel* files. The databases focused on our top three customers, namely, AmerisourceBergen, Cardinal Health, and McKesson Corporation. First, I imported the *Excel* spreadsheets into *Access*, while selecting only relevant fields. Figure 5.0 below illustrates importing *Excel* spreadsheets into *Access*.

![Image of Access database](image.png)

**Figure 5.0 – Importing 2003 cycles MS Excel spreadsheets into MS Access**

Next, I created queries for each cycle by filtering the data according to each wholesaler. In the final phase of the project, I created reports based on each cycle, per wholesaler. All in all, there were three separate representations for each periodic cycle, to reflect the three wholesalers.

**CONCLUSION**

My responsibilities, as an intern, ranged from working with various *Microsoft* applications to working in-depth with *Cognos*. Nevertheless, I had a rewarding experience. Furthermore, GSK creates room for growth and professional development for its associates by organizing various seminars and activities. For example, I attended *GSK Experience*, which was a full day set aside for new associates. We were given an insider perspective on the company, from global operations to local day-to-day procedures. In addition, the IT department holds periodic *Business IQ* sessions, aimed at creating an understanding of the “big picture” of GSK’s business principles, issues, and processes. On the casual end, I attended occasional cookouts at
which I met senior management, including the president and vice presidents. I also participated in community-service opportunities.

It was a privilege to be part of a company that is leaving positive, indelible marks throughout the globe. GSK ranks in *Fortune Magazine’s 100 Global Most Admired Companies* (Fortune.com). My internship taught me valuable skills necessary to succeed in the computing field such as working with deadlines on multiple assignments, relating to my superiors and associates while maintaining a professional demeanor. Also, the obstacles that I faced when working on projects has influenced me to seek non-traditional approaches to problem solving.

I wish to thank the faculty and staff of the Computer Science department at Slippery Rock University for their support and persistence. In particular, I must single out Dr. Sam Thangiah, my internship professor, without whom this internship would never have been a reality. I also owe a huge debt of gratitude to Dr. Vernice Cain who teaches English Language and Literature at Slippery Rock University. Dr. Cain served as the editor and helped me to mold this text into the comprehensive paper that it is. My appreciation would be incomplete without mention of the highly professional GSK associates and managers. They are the best in the business, and I am honored to have worked with them all.
APPENDIX

Works Cited

GlaxoSmithKline Plc. “About GlaxoSmithKline – Overview”
http://www.gsk.com/about/about.htm


Cognos. “Cognos ReportNet™ - Features and Benefits”

Fortune.com “2004 Global Most Admired Companies”

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**INTERNSHIP WEEKLY LOG**

### Week 1

| Monday, May 17 | • Human Resources Orientation.  
|               | • Conference Center orientation.  
|               | • Central Knowledge Management Team meeting.  |
| Tuesday, May 18 | • Read Cognos Visualizer Tutorial Handbook.  
|                | • Attended meeting of IT interns with IT mentors.  
|                | • Read the *GSK Executive Dashboard Training Handbook*.  
|                | • Toured IT Department, Computer Room, Fitness Center, Xerox Room (mailroom) and office areas of the Executive Board.  |
| Wednesday, May 19 | • Attended Central Knowledge Management (CKM) Team Meeting  
|                  | • Familiarized myself with GSK’s intranet system - *myGSK* - and the Lotus Notes email system.  |
| Thursday, May 20 | • Van Wyk demonstrated to me some of the functionalities of *Cognos Visualizer*.  
|                  | • Experimented further with Cognos Visualizer using both the official *User Guide* and the *Tutorial Handbook*.  
|                  | • Applied to the Help Desk for access to the U: drive containing the Cognos folder.  |
| Friday, May 21 | • Had a breakfast meeting with Van Wyk, in which she explained the different Cognos applications.  
|                | • Went through the on-hands *Cognos ReportNet Tutorial* handbook.  
|                | • Van Wyk and I implemented a simple Visualizer sample.  |

### Week 2

| Monday, May 24 | • Attended a four-hour training session on PowerPlay Web Explorer, Series 7 - Version 2  |
| Tuesday, May 25 | • Slow day, but I was granted access to the Cognos folder  |
| Wednesday, May 26 | • Attended CKM team meeting  |
| Thursday, May 27 | • Slow day  |
| Friday, May 28 | • Created Trade Inventory Analysis reports and backups, for different brands under their respective BUs, using Cognos ReportNet  |

### Week 3

| Monday, May 31 | • Created an Executive Dashboard on the Year-to-Date Shipments BU, using Cognos Visualizer.  |
| Tuesday, June 1 | • Attempted the “filtering” approach for the visualization to focus on relevant brand names.  |
| Wednesday, June 2 | • Attended a CKM team meeting.  |
| Thursday, June 3 | • Met with Van Wyk and Schwertz to determine an alternative solution to the filtering problem.  |
| Friday, June 4 | • Commenced my first project by creating separate pages for each brand using the *Executive Dashboard with BU Views* as my template.  
|                | • Changed features such as borders, shading, and page title.  |
## Week 4

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Monday, June 7     | • Created viewpoints.  
                    • Reset the actions associated with the “hot” buttons.  
                    • Attended a GSK Executive Dashboard Training session. |
| Tuesday, June 8    | • Finished creating all the brand pages.                                    |
| Wednesday, June 9  | • Created and activated links throughout the Executive Dashboard.           |
| Thursday, June 10  | • Van Wyk and I published the Executive Dashboard on the "kopsache003" server, which is the Production web server.  
                    • Tested published pages for errors such as broken links, inactive links, and incorrect image alignments. |
| Friday, June 11    | • Corrected discovered errors, and also incorporated new ideas into the Dashboard.  
                    • Van Wyk and I republished the Executive Dashboard. |

## Week 5

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Monday, June 14    | • Emailed the completed Dashboard to CKM team members for their input.  
                    • Did office work for Schmidt. Compared the hard copy list of users with Cognos access to the list of users in database, to check for discrepancies. |
| Tuesday, June 15   | • Attended first IT department Business IQ session conducted by Rich Kocur. The subject was S.W.O.T Analysis.  
                    • The Dashboard I designed was given a vote of confidence by CKM team. |
| Wednesday, June 16 | • Received some recommendations for Dashboard design which I implemented. I discovered that, in CKM, perfection is of the essence. |
| Thursday, June 17  | • Continued working on the Executive Dashboard.                                |
| Friday, June 18    | • Finished with the Dashboard and Van Wyk published it.                        |

## Week 6

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Monday, June 21    | • Commenced work on my second project, POS Trends Summary for all brands, using Cognos ReportNet.  
                    • Took a tour of ReportNet and Van Wyk demonstrated ReportNet tips. |
| Tuesday, June 22   | • Using the POS package, I created tables and defined relationships between the tables. |
| Wednesday, June 23 | • Nested the tables in a hierarchical order, from the Query to the Parent to the Children to other sub-tables. |
| Thursday, June 24  | • Formatted the appearance of the report using ReportNet’s built-in tools.  
                    • Attended GSK Experience all day. |
| Friday, June 25    | • Executed the report and applied corrections as necessary.                   |

## Week 7

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, June 28</td>
<td>• My report began producing incorrect output, so I attempted to debug it all day to no avail.</td>
</tr>
<tr>
<td>Tuesday, June 29</td>
<td>• Van Wyk took a shot at debugging, but apparently, the problem is quite complicated, and she has some other work to do</td>
</tr>
<tr>
<td>Wednesday, June 30</td>
<td>• Continued debugging.</td>
</tr>
<tr>
<td>Thursday, July 1</td>
<td>• Continued formatting data appearance while waiting for Van Wyk.</td>
</tr>
<tr>
<td>Friday, July 2</td>
<td>• Slow day.</td>
</tr>
</tbody>
</table>

15
### Week 8

<table>
<thead>
<tr>
<th>Day, Week 8</th>
<th>Events</th>
</tr>
</thead>
</table>
| Monday, July 5 | • Van Wyk worked on the report and discovered the cause of the error.  
• She corrected the error, and now, the report runs fine. |
| Tuesday, July 6 | • Van Wyk and I started working on the next project, automating the execution of the reports in Maestro schedule.  
• Commenced writing the JAVA program that would trigger the reports located in ReportNet. Suneth Rupasinghe also helped out. |
| Wednesday, July 7 | • After debugging the program, we can automatically log into ReportNet, but the trigger is still giving some errors.  
• Brainstormed the trigger errors all day to no avail. |
| Thursday, July 8 | • Van Wyk emailed our code to Cognos Help Desk, so that they could assist us in debugging the “trigger” error.  
• Meantime, we also attacked the problem from our end, but to no avail. |
| Friday, July 9 | • Cognos Help Desk emailed us the corrected code. The problem had to do with how we were passing in our parameters.  
• Restructured the Maestro schedules.  
• We tested our program on ReportNet, and it successfully ran. |

### Week 9

<table>
<thead>
<tr>
<th>Day, Week 9</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, July 12</td>
<td>• Created Microsoft PowerPoint flowcharts for the shipment-reports schedules.</td>
</tr>
<tr>
<td>Tuesday, July 13</td>
<td>• Met with my supervisor, Larry Schwertz, for an evaluation of my internship performance thus far. Received a high approval rating.</td>
</tr>
<tr>
<td>Wednesday, July 14</td>
<td>• Met with Debbie Hays, Manager, Marketing Account.</td>
</tr>
<tr>
<td>Thursday, July 15</td>
<td>• Met with Jay Newport, Manager, Application Support and Development.</td>
</tr>
<tr>
<td>Friday, July 16</td>
<td>• Slow day.</td>
</tr>
</tbody>
</table>

### Week 10

<table>
<thead>
<tr>
<th>Day, Week 10</th>
<th>Events</th>
</tr>
</thead>
</table>
| Monday, July 19 | • Met with Account Manager, Norm Elliot, to be briefed on my next project, One Box Data Project.  
• I am to work with the marketing department on this project, so I set up an appointment with Linda Kieda from Unsaleables group.  
• Attended a Business IQ session on Nicoderm group. |
| Tuesday, July 20 | • Met with Denise Senish, Director, Project Management. |
| Wednesday, July 21 | • Met with Tim Price, Manager, Computing and Services. |
| Thursday, July 22 | • Met with Linda Kieda. She gave me an overview of Unsaleables group, and also, of the One Box Data Project. |
| Friday, July 23 | • Met with Rich Podgurski, Vice President, Information Technology.  
• Started a database project using Microsoft Access.  
• Imported the data from Microsoft Excel files for 2003 cycles.  
• Filtered the imported files to display only relevant fields pertaining to our top three wholesalers – AmerisourceBergen, Cardinal Health, and McKesson. |
### Week 11

<table>
<thead>
<tr>
<th>Monday, July 26</th>
<th>• Began creating queries for each cycle per wholesaler, i.e., 24 cycles per wholesalers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, July 27</td>
<td>• Finished creating the queries.</td>
</tr>
</tbody>
</table>
| Wednesday, July 28 | • Started creating the associated reports. The reports have much complicated nestings.  
| | • Read up on references about creating nested reports on *Microsoft Access*.  
| | • Met with Linda Kieda to determine the exact format that *Unsaleables* want the reports in. |
| Thursday, July 29 | • On vacation.                                                                    |
| Friday, July 30 | • On vacation.  
| | • My second supervisor, Van Wyk, also left on vacation. I will finish with my internship before she returns. |

### Week 12

<table>
<thead>
<tr>
<th>Monday, August 2</th>
<th>• On vacation.</th>
</tr>
</thead>
</table>
| Tuesday, August 3 | • Continued formatting the reports.  
| Wednesday, August 4 | • Met with Rich Kocur from CKM to discuss the concept of Business Analysis, and also, career options in the field.  
| | • Finished creating and formatting the reports for the 2003 year, and thus, the first half of the *One Box Data Project*.  
| Thursday, August 5 | • Checked all queries and reports for errors.  
| | • Met with James Nelson, Account Manager. |
| Friday, August 6 | • Started on the second half of the project by creating a new database project for the 2004 year.  
| | • Imported the data for all the cycles from *Microsoft Excel* files. |

### Week 13

<table>
<thead>
<tr>
<th>Monday, August 9</th>
<th>• Created queries based on the imported data, for all cycles per wholesaler.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, August 10</td>
<td>• Finished creating the queries.</td>
</tr>
<tr>
<td>Wednesday, August 11</td>
<td>• Created the associated reports and formatted them.</td>
</tr>
<tr>
<td>Thursday, August 12</td>
<td>• Finished formatting the 2004 reports.</td>
</tr>
<tr>
<td>Friday, August 13</td>
<td>• Checked all queries and reports for errors.</td>
</tr>
</tbody>
</table>

### Week 14

| Monday, August 16 | • Began saying my goodbyes to various associates in different departments.  
| | • Collected business cards |
| Tuesday, August 17 | • Rechecked all created queries and reports for the *One Box Data Project*.  
| | • Emailed the entire project to Linda Kieda as a *Microsoft Access* attachment. |
| Wednesday, August 18 | • Reflected on my entire summer internship experience with GSK. |
| Thursday, August 19 | • Started clearing my desk. |
| Friday, August 20 | • Last day of my internship. Met with Rob Kovacevic from John Daniel Associates.  
| | • Had one last meeting with my supervisor, Larry Schwertz  
| | • Finished clearing my desk. Said my goodbyes, and departed. |
CHIBUIKE EJIM (jimjim)

School: 223 Founders Hall, Slippery Rock, PA 16057
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EDUCATION
Bachelor of Science in Computer Science, Minor in Information Technology
Slippery Rock University of Pennsylvania (SRU), Slippery Rock, PA
Dean’s List, Spring 2002 – Spring 2004; QPA 3.61/4.0

COMPUTER SKILLS
Platforms
MacIntosh, Mandrake Linux 10.1, Windows

Programming Languages
C++, Fortran, HTML, Java, JavaScript, Ada

Software Tools and Packages
Adobe PhotoShop, Allaire HomeSite, Borland C++, Dev C++, JBuilder7, MS Access, MS Excel, MS FrontPage, MS PowerPoint, MS Word, Maple, Minitab

Mathematical/Statistical Tools and Packages
Cognos Series 7 Suite - PowerPlay, Upfront, Visualizer, ReportNet

RELATED EXPERIENCE
Fall 2004 Semester Group Projects – Computer Networks Class
October 2004 - Present
- Configured an Apache Web Server to serve active content (CGI) to browsers.
- Worked with a partner to configure an anonymous FTP server that allowed file downloads to anonymous users.
- Wrote a Web server in C++ using HTTP v.1.1, which follows the concurrent connection-oriented server algorithm.

Information Technology Intern, Central Knowledge Management Group
May 2004 – August 2004
GlaxoSmithKline Plc (GSK) – Consumer HealthCare, Pittsburgh PA
- Built sales and consumption reports, using Cognos ReportNet, that compared past data to present data.
- Condensed raw GSK data for employees, by creating Executive Dashboard visualizations using Cognos Visualizer.
- Created and managed databases with Microsoft Access, organizing raw data that contained information on GSK products.

Student Web Designer
January 2004 - Present
Dr. Padma Anand, Department of Counseling and Educational Psychology, SRU
- Designing and maintaining the instructor’s class websites.
- Providing technology-related assistance in teaching and research with undergraduate and graduate classes.
- Troubleshooting technical difficulties as well as aiding with general office duties.

Member, FORTRAN To JAVA Team
January 2004 – April 2004

Spring 2004 JAVA Project – Finding Groups in Data
- Worked in a team of three to convert Fortran code to Java, for a project, “Finding Grouped Data”.
- Updated the professor weekly on the progress of the project and my individual contribution.

Member, Web Development Team
October 2003 - Present
Computer Technology Club, SRU
- Collaborated with a team to design the SRU Computer Technology Club’s new website.
- Taught senior citizens in nursing homes, in the Computer Basics for Senior Citizens program.

Interactive Television (ITV) Student Technician
September 2002 – May 2003
Media Services, Bailey Library, SRU
- Efficiently set up audio and visual equipment for distance learning classes.
- Facilitated uninterrupted operation of the various equipment, to ensure smooth flow of lectures.
- Resolved technical hitches, thereby, consolidating my problem-solving skills.

WORK EXPERIENCE
Community Assistant
August 2003 - Present
Office of Residence Life, SRU
- Overseeing residents in the residence hall.
- Planning and executing programs aimed at incorporating a sense of community on the floor.

Student Worker
June 2002 – January 2004
SGA Bookstore - Apparel Department, SRU
- Provided excellent customer service when dealing with customers at the SGA bookstore.

SPECIAL ACHIEVEMENTS/AWARDS/HONORS
Recipient, SRU International Student Recognition Award
Public Relations Officer, Computer Technology Club, SRU
President, Internations Club, SRU, with remarkable accomplishments
Member, Golden Key International Honour Society, SRU Chapter
Member, Honors Program, Slippery Rock University

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