

Project Approval Document

Project Summary

Project Name Chocoholics Anonymous		Project Number 1234567890
Project Start Date 7/2/18	Project End Date 8/20/18	Executive Sponsor Thomas Steiner
<p>Business Issue and / or Opportunity</p> <p>Purpose:</p> <p>The current problem at Chocoholics Anonymous is that a majority of the processes in the company are very time consuming and require a lot of manual effort. Our plan is to store member and provider information into an internal database, where they can be automatically managed and updated. The information can be accessed at any time by the ChocAn Data Center, the Provider Directory, the member/provider terminals at the ChocAn facility, and Acme Accounting Services.</p> <p>Current State:</p> <p>Currently, the company's services are all provided manually. In order for members and providers to get services through ChocAn, they have to communicate with the team through either phone or email in order to get a service billed by ChocAn. Members have to provide their name and member number, which is given to them on a card when they sign up. Providers have to give their provider number, a code for the service they provided, and the amount the provider needs to bill to ChocAn. Once the company receives this information, they enter it into an Excel spreadsheet and cross-reference all the data they were given to make sure everything is correct.</p> <p>Information about customers and providers is stored in an Excel spreadsheet that is updated manually by employees. Whenever an update is made, it must be re-sent to everyone in the company as there is no formal version control.</p> <p>ChocAn currently handles all payments by themselves. A shared ledger was created to keep track of who has paid how much as far as membership dues, but it is all updated manually by the employees. This not only takes a very long time to complete, but it must be synchronized manually. The whole process is error-prone as well due to all the manual labor needed.</p> <p>Reports are generated biweekly by the employees to be sent to members, providers, and managers. Employees look at the sheet containing all the services they know of, and manually copy-paste the necessary information into a report template. These reports are then manually sent out as email attachments to all the members and providers ChocAn supports. All these manual processes take lots of time and effort. Due to the nature of creating the reports, they can be inconsistent depending on who is producing them, even with the template being used.</p> <p>Proposed Future State:</p> <p>The members of ChocAn will be able to use their member cards to receive services from providers associated with ChocAn. They will give their member cards to providers who swipe their card into the ChocAn terminals, and the terminal will tell the provider if the member card is valid. Once this process is complete, they are able to receive services and the bill will go to ChocAn.</p> <p>Membership fees are handled by Acme Accounting Services, which is able to process all payments made by members and suspend them if they have not paid their dues, or reinstate them if they have. They are able to remotely access the ChocAn database, where they update membership status every evening at 9 PM.</p> <p>Providers associated with ChocAn are given ChocAn terminals which handle communication with the ChocAn servers, and they will handle verifying member information. When they are finished providing the service, the provider can swipe the person's member card and enter information about the service in a ChocAn terminal to get the service billed to ChocAn.</p> <p>Members, providers, and managers will get weekly reports automatically generated by the software via email describing various things. Members will get reports containing a list of the services they received through ChocAn that week. If they have not visited anyone, they will not receive a report. Providers will get reports containing a list of the services they provided to ChocAn, the fees that are to be paid by ChocAn for these services, and a sum total of the number of services they were provided and the total amount to be billed to ChocAn. Even if a provider has not provided any services that week, they will still receive a report stating that no services have been provided. Managers will receive a report containing all the providers that need to be paid that week, and how much money needs to be paid to each of them.</p> <p>Operators will be able to add and delete new members and providers on the fly, without having to worry about synchronizing files.</p>		
<p>Project Goal (one paragraph summary of problem issue/solution)</p> <p>The goal of this project is to automate the various processes at ChocAn that are currently being done manually. To do this, we will centralize all member and provider information in a database, located at a ChocAn data center. The data will be accessible remotely through ChocAn terminals available to ChocAn employees as well as all providers. This database will then be used to automatically generate reports for members, providers, and managers every week.</p>		

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Principal Project Objectives

1. Create a database to store member and provider data
2. Create software to process membership payments and determine membership status
3. Create front-end for providers to enter service information into and obtain provider directory
4. Create front-end for operators to modify member/provider data
5. Create software to generate reports for members, providers, and managers
6. Design ChocAn terminals
7. Create software that allows terminal to communicate with data center

Principal Project Deliverables

1. Objective 1 – Create a database to store member and provider data
 - 1.1. Use finalized ERD to design the full relational database
 - 1.2. Implement the database in SQL Server
2. Objective 2 – Create software to process membership payments and determine membership status
 - 2.1. ...
3. Objective 3 – Create front-end for providers to enter service information into and obtain provider directory
 - 3.1. Create functionality to allow entry of service information
 - 3.1.1. Allow user to enter provider number, then cross-reference with database
 - 3.1.2. Create interface to allow provider to enter service information
 - 3.1.3. Design SQL query to add the entered service to database
 - 3.2. Create functionality to create provider directory
 - 3.2.1. Design SQL query to obtain data for provider directory
 - 3.2.2. Determine file format for downloadable provider directory
 - 3.2.3. Integrate into C++ program to let user download a provider directory
4. Objective 4 – Create front-end for operators to modify member/provider data
 - 4.1. Will use C++ to create a switch statement displaying a menu for operators to modify data
 - 4.2. The operator can put in a member/provider's ID number and then C++ will pull from SQL to display that person's data
 - 4.3. The menu will also allow the person to modify the data
 - 4.4. Back and forth communication between SQL and C++
5. Objective 5 – Create software to generate reports for members, providers, and managers
 - 5.1. Determine general report file type and formatting
 - 5.2. Determine SQL queries needed to generate the reports
 - 5.3. Code C++ program to generate reports
 - 5.3.1. Integrate queries into program to obtain information
 - 5.3.2. Manipulate the information into the required format
 - 5.4. Automatically run the program on a given interval
6. Objective 6 – Design ChocAn terminals
 - 6.1. Design and physically construct ChocAn terminals to allow members to swipe their member card for access
7. Objective 7 – Create software that allows terminal to communicate with data center
 - 7.1. Allow terminal to access ChocAn database to gather and store necessary information based on what is selected on the terminal

Benefits (list hard and soft benefits)

- ChocAn employees will no longer need to spend time and effort on writing and sending reports
- Members and providers can bill services to ChocAn easier and quicker
- Payments toward membership dues will be kept track of by Acme, not ChocAn
- Employees will spend less time having to update information and synchronizing files and more time working
- Errors in member/provider data and reports will decrease

Metrics to Measure Project Results

- Number of errors in weekly reports
- Percentage of employee time spent working each day
- Number of services processed per week

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<p>Project Risks (details in risk table)</p> <ul style="list-style-type: none"> • Team member dropping course • Team member gets sick/injured • Team member doesn't do what they were assigned to do • SQL Server takes longer than expected to integrate into C++
<p>Related Projects</p> <p>No other related projects.</p>
<p>Project Teams/Support Teams</p> <ul style="list-style-type: none"> • Team "2"007 Britney Spears • Team "handling all the other stuff we don't do": This is the team that got the contract for the other portions of the project, not the data processing part.

Project Scope

Project Objectives & Deliverables Matrix

Objective/ Deliverable Matrix	Responsible for Delivery	Supporting Team(s)	Receiving Team(s)	Delivery Date
Objective 1: Create a database to store member and provider data				7/16/18
Deliverable 1.1: Use finalized ERD to design the full relational database	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/9/18
Deliverable 1.2: Implement the database in SQL Server	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18
Objective 2: Create software to process membership payments and determine membership status				7/30/18
Deliverable 2.1: ...	Team "handling all the other stuff we don't do"		Team "handling all the other stuff we don't do"	7/30/18
Objective 3: Create front-end for providers to enter service information into and obtain provider directory				7/23/18
Deliverable 3.1: Create functionality to allow entry of service information	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/23/18
Deliverable 3.1.1: Allow user to enter provider number, then cross-reference with database	Team "2"007 Britney Spears	Team "2"007 Britney Spears	Team "2"007 Britney Spears	7/23/18
Deliverable 3.1.2: Create interface to allow provider to enter service information	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18
Deliverable 3.1.3: Design SQL query to add the entered service to database	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18
Deliverable 3.2: Create functionality to create provider directory	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/23/18
Deliverable 3.2.1: Design SQL query to obtain data for provider directory	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18
Deliverable 3.2.2: Determine file format for downloadable provider directory	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18

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Deliverable 3.2.3: Integrate into C++ program to let user download a provider directory	Team "2"007 Britney Spears	Team "2"007 Britney Spears	Team "2"007 Britney Spears	7/23/18
Objective 4: Create front-end for operators to modify member/provider data				7/30/18
Deliverable 4.1: Will use C++ to create a switch statement displaying a menu for operators to modify data.	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18
Deliverable 4.2: The operator can put in a member/provider's ID number and then C++ will pull from SQL to display that person's data.	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/23/18
Deliverable 4.3: The menu will also allow the person to modify the data.	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/30/18
Deliverable 4.4: Back and forth communication between SQL and C++.	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/30/18
Objective 5: Create software to generate reports for members, providers, and managers				7/30/18
Deliverable 5.1: Determine general report file type and formatting	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/9/18
Deliverable 5.2: Determine SQL queries needed to generate the reports	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/16/18
Deliverable 5.3: Code C++ program to generate reports	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/30/18
Deliverable 5.3.1: Integrate queries into program to obtain information	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/23/18
Deliverable 5.3.2: Manipulate the information into the required format	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/23/18
Deliverable 5.4: Automatically run the program on a given interval	Team "2"007 Britney Spears		Team "2"007 Britney Spears	7/30/18
Objective 6: Design ChocAn terminals				7/30/18
Deliverable 6.1: ...	Team "handling all the other stuff we don't do"		Team "handling all the other stuff we don't do"	7/30/18
Objective 7: Create software that allows terminal to communicate with data center				7/30/18
Deliverable 7.1: ...	Team "handling all the other stuff we don't do"		Team "handling all the other stuff we don't do"	7/30/18

Exclude from Project

- Nothing.

Assumptions

- Nothing.

External Time Constraints

- End of the semester, 8/20/18.

Financials (Costs and Benefits)

- See Business Case.

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Risk Analysis

Risk	Probability of Risk H/M/L *	Potential Impact of Risk C/H/M/L *	Risk Mitigation Strategy and Contingent Action(s)
Team member dropping course	Low	High	Mitigation: Communicate to team and reassign tasks and/or convince members not to drop Contingency: Redistribute immediate responsibilities to another team member until next team meeting
Team member gets sick/injured	Medium	High	Mitigation: Communicate with the team and reassign tasks, therefore making it easier on the team member to do quality work while recovering Contingency: Reevaluate responsibilities to the remaining team members until the current sick/injured team member is mostly healthy.
Team member doesn't do what they were assigned to do	Low	High	Mitigation: Communicate with the team and reassign tasks. Assign tasks and finish them ahead of time so failure to complete something has less of an impact on the project. Contingency: Reevaluate responsibilities to the remaining team members, and have a discussion with the team member that couldn't complete their work.
SQL Server takes longer than expected to integrate into C++	Medium	High	Mitigation: Thorough research into SQL Server and the API responsible for communicating with it (SQLAPI++) early into the project. Contingency: Drop the SQL database entirely and store/work with the database data as .csv files.

* Critical /High / Medium / Low

Reporting – Scope Change, Issue, Risk Management (RMMM) and Status

Communication Plan

Information Type	Subject	Responsible Person	Frequency	Audience
Report	Weekly Status	Team Lead	Weekly - Monday	Project Manager
Weekend Team meeting	Discuss issues	Team Lead	Weekly - Sunday	Team "2"007 Britney Spears
Mid-week Team meeting	Discuss issues	Team Lead	Weekly - TBD	Team "2"007 Britney Spears
GroupMe	Discuss issues	Team Lead	Daily	Team "2"007 Britney Spears

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In-Class Debrief	Discuss approach project	Team Lead	Every Class Period	Both ChocAn Teams
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Project Organization

Roles and Responsibilities - Project Team Members & Support Personnel (example)

Project Role	Name or skill set required	Department/Organization
Project Manager	- Project management	Project Management
Team Lead	- Communication	Project Team
Team Member	- Coding - Documentation - Databases - Communication	Project Team

Project Approval Signatures

Name	Project Team Role	Signature	Date
Thomas Steiner	Project Manager		
Srinivas Simhan	Team Leader		
Josh Attard	Team Member		
Veeram Hirekhan	Team Member		
Hassan Mehdi	Team Member		
Maram Mohammed	Team Member		
Allison Ramasami	Team Member		

Document Information

Revision History

Version	Date	Author(s)	Revision Notes
1.0	5/22/18	Team "2"007 Britney Spears	Initial Stages of Document
1.1	6/3/18	Team "2"007 Britney Spears	Date changes, revise metrics, delivery dates