Operational Concept Description (OCD)

GOTRLA

Team 15

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December 08 2014

Version History

Date	Author	Version	Changes made	Rationale
08/20/05	PP	1.0	• Original template for use with LeanMBASE v1.0	• Initial draft for use with LeanMBASE v1.0
08/28/05	PP	1.1	• Added section 3.2	• Section 3.2 was added to provide traceability for the outcome in the Benefits Chain
08/30/06	SK, RT	1.6	• Added Template for Tables and Figures	• Consistent format
10/04/06	SK	1.61	• Added section 3.3.1	• Section 3.3.4
09/14/07	SK	1.9	• Updated Section 2.4, 3.3.1, 3.3.2, 3.3.3	• Consistent with LeanMBASE V1.9
08/25/08	PA	2.0	• Swapped sections 3.4 and 3.5. • Renamed section 2.4 title from "Benefits Chain (Initiatives, Expected Outcomes, and Assumptions)" to "Benefits Chain" • Replaced References section (1.2) with "Status of the OCD" • Edited Table 1 structure to be consistent with the Instructional ICM-Sw OCD Guideline. • Added Figure 2, Figure 3, and Figure 4 • Edited Table 2 to be consistent with the Instructional ICM-Sw OCD Guideline	• Initial draft for use with Instructional ICM-Sw v2.0 modified from LeanMBASE v1.9
05/22/09	SK	2.1	• Embedded description in each Table • Removed section 3.5 Prototype • Moved all goals to the Section 3.1 • Removed Section 4. WikiWinWin Result • Added Section 3.1.4 Constraints • Added Section 3.1 Current System	• To be consistent with ICM EPG template set standard V2.1 • To leanify and rearrange data presentation • Moved Prototype information to Prototype report • To document information about current system
08/15/12	TK	2.2	• Added Program Model • Updated index of subsections in section 2 Shared Vision	• To be consistent with ICSM EPG
10/14/14	Suhani Vyas Nidhi Baheti	3.1	Updated the proposed business workflow and entity relationship diagram	Some new frameworks were identified so ER diagram was modified.

Date	Author	Version	Changes made	Rationale
10/18/14	Nidhi Baheti	3.2	Updated the proposed business workflow, current business workflow and system boundary diagram.	In the feedback from FCR ARB, it was suggested to simplify the proposed business workflow so that it becomes more readable. Some changes in system boundary diagram were also suggested.
11/30/14	Nidhi Baheti	3.3	Updated the proposed business workflow, Entity Relationship Diagram, Benefits Chain Diagram and system Boundary Diagram.	Based on the feedback received from TA.
12/08/14	Nidhi Baheti	3.4	Update Entity Relationship Diagram	Based on reviews of TA

Table of Contents

Table of Tables

Table of Figures

1. Introduction

1.1 Purpose of the OCD

This document provides, in detail, the shared visions and goals of the stakeholders of the Attendance tracking system for the Girls on the run of Los Angeles County (GOTRLA). The success-critical stakeholders of the project are Molly Snow, as the project client, the GOTRLA Program Staff and volunteers, as users and CS577a Team 15 as Developers.

1.2 Status of the OCD

The status of the OCD is currently at the Foundation Commitment Package version   3.4.

2. Shared Vision

In order to understand or know what projects or related initiatives are required for program management we create a Program Model as shown below. The model helps in designing and managing programs. Understanding the concept of a program – how it is different from traditional projects and what it brings to them – is the first major step to embarking on the route to effective, proactive benefits management.

The Program Model starts out with five components as shown in the table below

Table 1: The Program Model

Assumptions			
• Every camp will have atleast two coaches with Smartphone. • Paper based attendance monitoring system is the reason for low program quality. • The program quality will improve by using this application and having real time data.			
Stakeholders (Who is accountable for the initiatives)	**Initiatives** (What to do to realize benefits)	**Value Propositions** (Benefits i.e. Why)	**Beneficiaries** (Who derives value)
-GOTRLA staff -Coaches -CSCI577a Team15 -Maintainers	-Develop a mobile application and a web server for new participants' check-in system. -Provide training to the program staff to use the new system. -Record the attendance of the girls and the coaches. -Monitor the attendance of the girls and coaches in each roster.	-Improved attendance monitoring. -Improved volunteer support. -More efficient processes for volunteer and staff.	-Volunteer Coaches - Program Staff - Program Participants
Costs		Benefits	
-Annual apple store membership cost. -Web Server hosting cost. -Need to hire a maintainer. -Time/manpower spent on creating the system.		-Have real time data on attendances. -Reduce the paper work done by the program staff. -Increased number of girls registering for the program.	

Legend:

Initiatives that need to be undertaken to help beneficiaries **derive value** from the expected benefits/value propositions

Initiatives that need to be undertaken to help **deliver value** to the beneficiaries (i.e. "how" will the benefits reach the beneficiaries?)
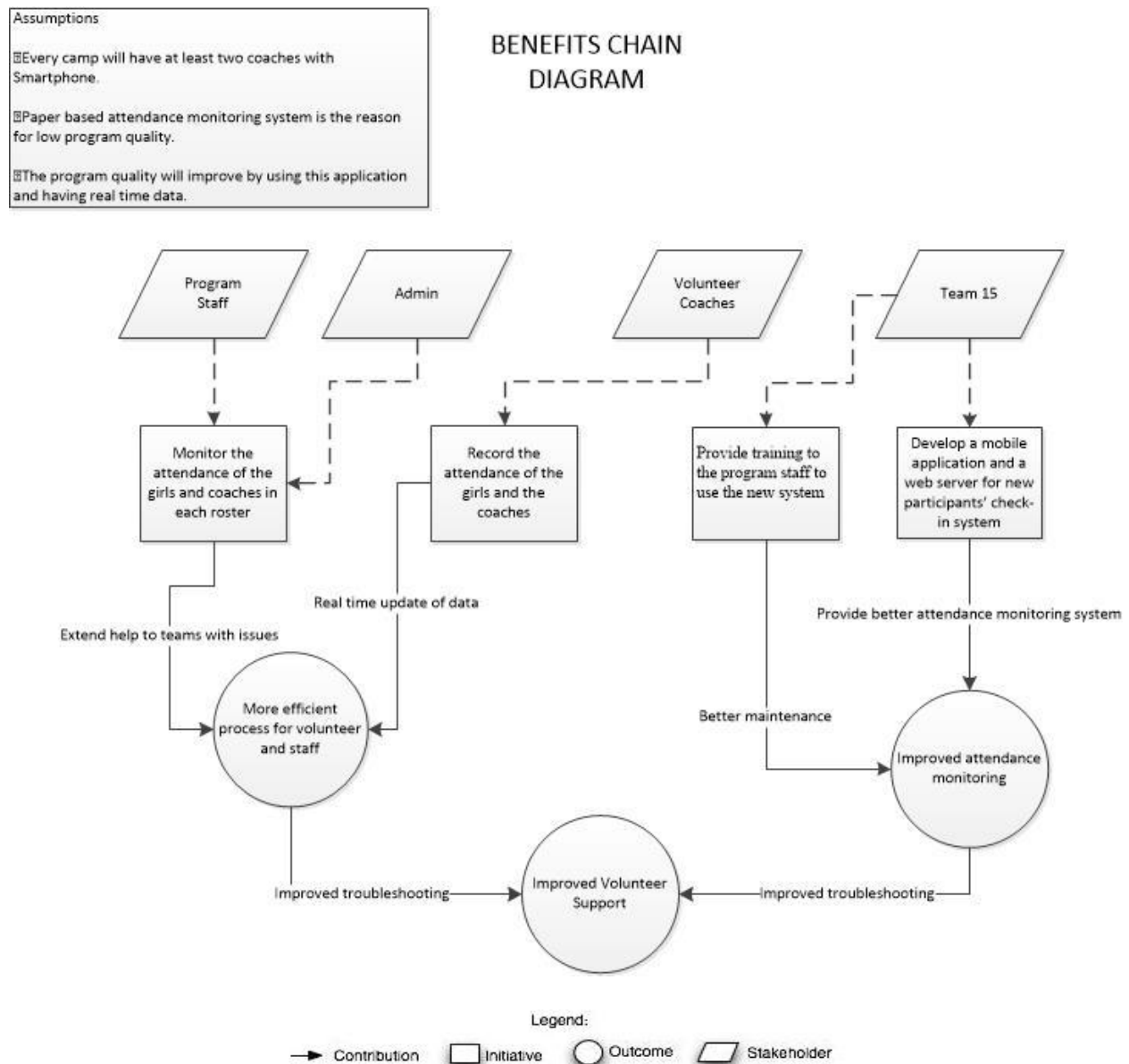
2.1 Benefits Chain

Figure 1: Benefits Chain Diagram of GOTRLA's Attendance Tracking System

2.2 System Capability Description

We are building a web-based/mobile-based Attendance Tracking system for Girls on the Run LA, which is a non-profit organization. GOTRLA aspires to acquire a better attendance tracking system as compared to the traditional system of manually taking attendance which involves heavy paperwork. Our proposed system which would be easy and intuitive to use, comprises a mobile application through which the coaches will be able to check-in the girls and other coaches at a roster. The program staff will be able to monitor the attendance data via a website. This will reduce the huge amount of paperwork and delays and ultimately help GOTRLA to improve their overall program quality.

2.3 System Boundary and Environment

```
  PROGRAM
   STAFF                          -Attendance tracking
                                  -Class management
                                  -Student management
                                  -Volunteer Management

  COACHES/
  VOLUNTEER
                                  -Apache Server
                                  -Symfony Framework
                                  -Doctrine Framework
                                  -Net Beans (PHP Version)
                                  -Phone gap Tool
                                  -Ripple Emulator
                                  -MySQL
    ADMIN                         -JavaScript, CSS, HTML 5.0
                                  -JSON


                     INTERNET


                       LEGENDS
  [  ]  List of Services      ( )  Stakeholders and Systems
```
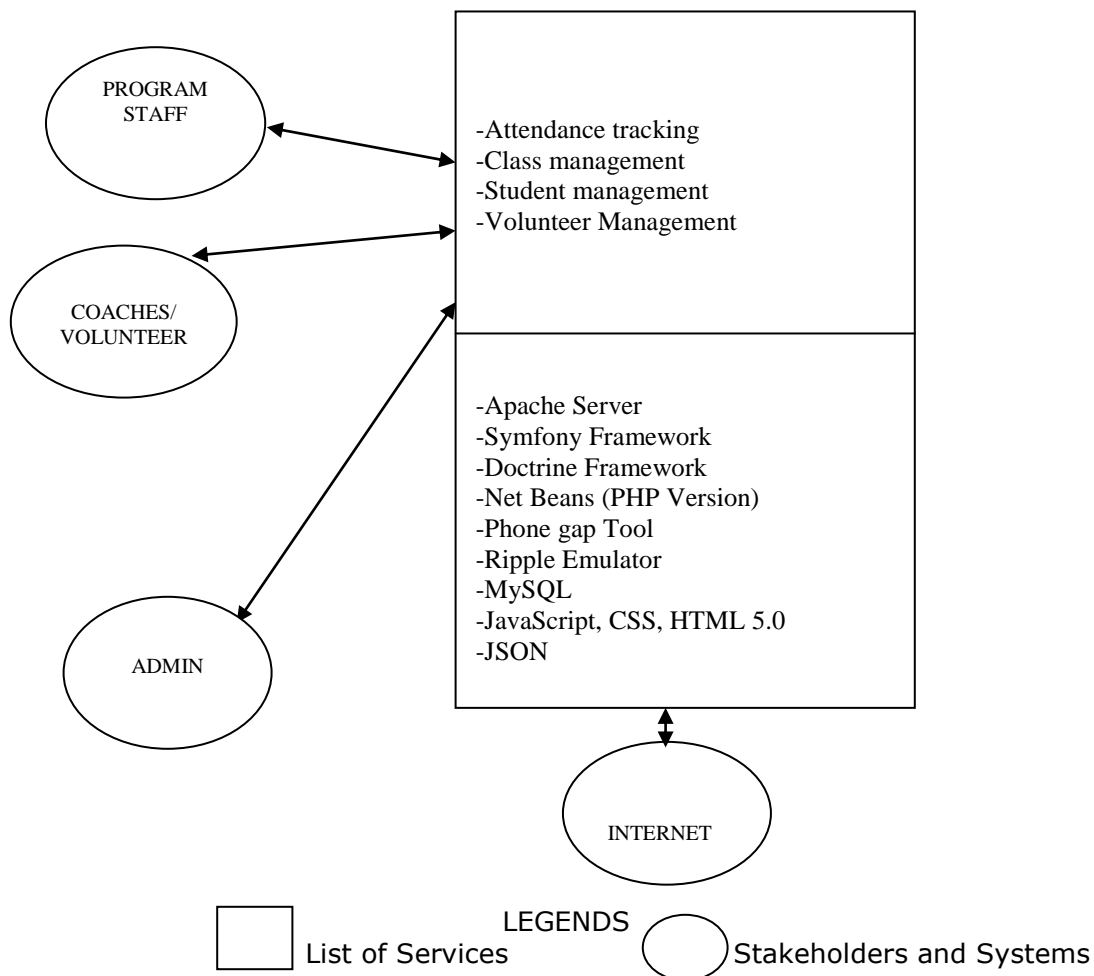
Figure 2: System Boundary and Environment Diagram of GOTRLA's Attendance Tracking System

3. System Transformation

3.1 Information on Current System

3.1.1 Infrastructure

Currently, GOTRLA has a manual system of taking attendance where the data of the girls and volunteer coaches is provided by Race Planner which is a third party software solution provider. Using this data, GOTRLA follows a paper-based traditional attendance tracking method, in which the volunteer coaches mark the attendance of the girls on the team roster. The rosters are then forwarded to the program staff. There is no system to monitor the attendance of the volunteer coaches.

3.1.2 Artifacts

The current artifacts include:
1. The attendance sheet in which attendance is manually entered by the coaches at the site
2. The excel sheet in which the data of the girls is stored at the time of registration.

The pictures of the artifacts are shown below while the artifacts are attached with this document.

Figure 3: Artifact (i) Attendance sheet

Figure 4 Artifact (ii) Student details

5. Data to be included in App

There is another excel sheet which consists of all the details of the girls that are entered during registration. The list of fields incorporated in the excel sheet is as below:

First Name, Last Name, Street Address 1,Street Address 2,City,State,Zip,Telephone Number, Email Address, DateOfBirth, Age,M/F, Event Category Short, Event Category, Age Category, Wave Name, Wave Start (PST),Status, Registration Date, Submitted Date, Payment Complete,

Giveaway, Store Items, Chip Timed?, Bib Number, Waiver Signed, Electronic Signature, Coupon Code, Runner ID, Registration Fee, Additional Donation, Merchandise, Upgrade Fee, Discount, Price Adjustment, Sales Tax, Total Due (Less Fees),Total Due (With Fees),Payment Amount, Payment Method, Payment Comment, Lottery Payment Status, Lottery Status, Registration Method, Registration ID, TeamName, TeamType, Household Income, Household Size, Lunch Program, RunnerID, Batch ID,P-Grade,P-Seasons,P-Ethnicity,P-AS-CheckOut,H-Allergies,H-Medications,H-SpecialProblems.

Overview of Artifacts Uses
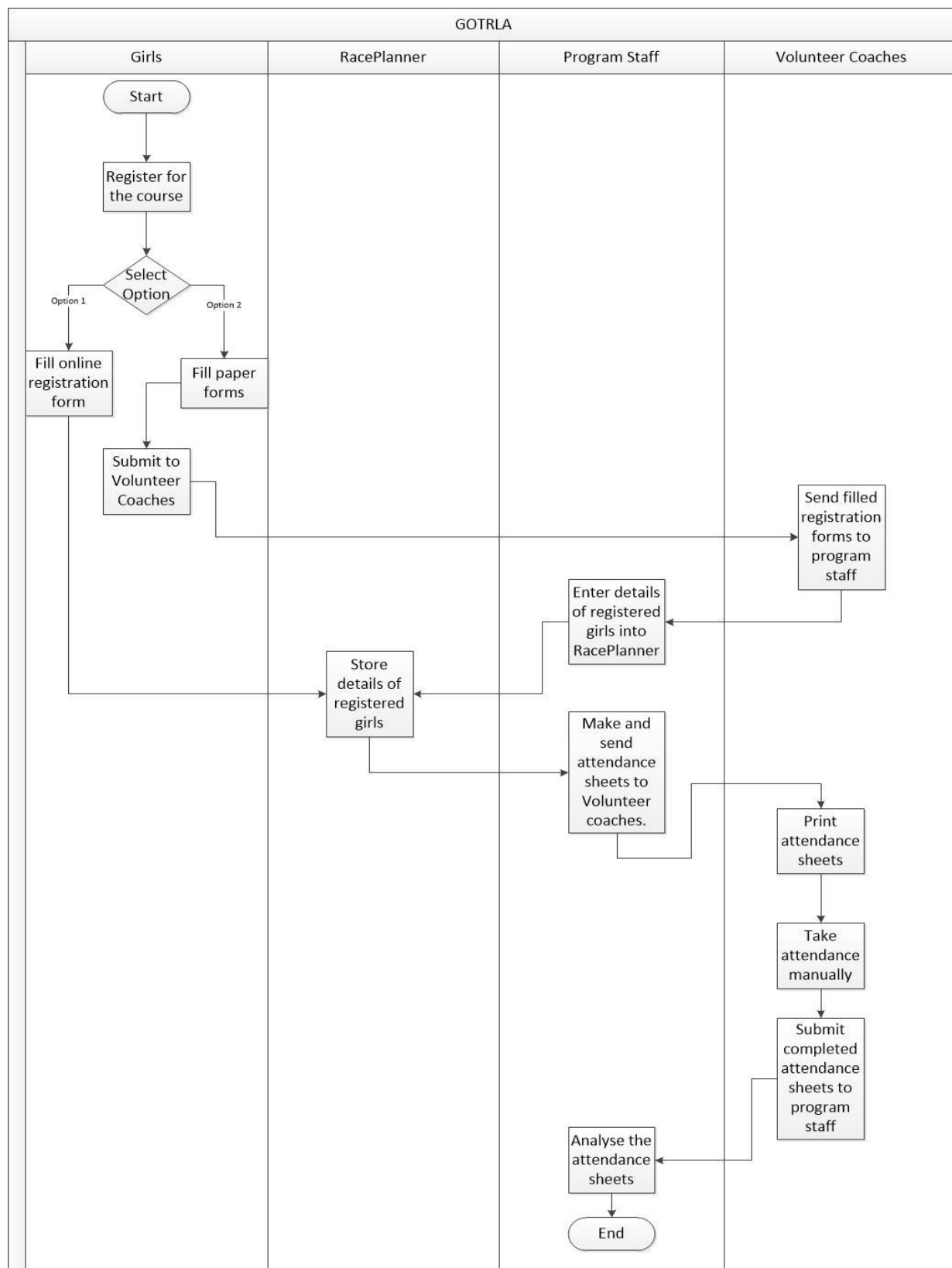
3.1.3   Current Business Workflow

Figure 6: Current Business Workflow of GOTRLA

3.2 System Objectives, Constraints and Priorities

3.2.1 Capability Goals

Capability Goals	Priority Level
OC-1 Student management: The system is capable of adding/editing and deleting girl's data.	Must have
OC-2 Volunteer management: The system is capable of adding/editing and deleting data of volunteer coaches.	Must have
OC-3 Class Management: The system is capable of Adding/Editing and Delete classes.	Must have
OC-4 Attendance Tracking: The system shall provide the methods to check-in the girls and store the attendance data.	Must have

3.2.2 Level of Service Goals

Table 2: Level of Service Goals

Level of Service Goals	Priority Level
LOS-1: Reliability: The system shall be down for no more than 3 to 5 hours a month and preferably not after the school hours.	Must have
LOS-2: Usability: The system shall be easy and intuitive to use.	Can have
LOS-3: Maintainability: The system shall be easily monitored and maintained.	Must have

3.2.3 Organizational Goals

OG-1: Improved Attendance Monitoring

OG-2: Reduced Paperwork for attendance

OG-3: Better tracking of program quality

OG-4: Increased support to teams having issues.

3.2.4 Constraints

CO-1: The system should be accessible via a desktop and mobile device (iOS > Android >Windows)
**CO-2:** Maximum Budget is $750

3.2.5   Relation to Current System

Table 3: Relation to Current System

Capabilities	Current System	New System
Roles and Responsibilities	- The volunteer coaches have to manually take the attendance of the girls in rosters. - The Program staff has to go to the sites in order to evaluate the progress and quality of the program. - There is no system to track the attendance of the volunteer coaches.	- The volunteer coaches will be able to use the mobile application to check-in the attendance of the girls and other volunteer coaches. - The program staff need not go to the program sites in order to measure the program quality and progress. - Program staff can monitor the progress of a particular team by using the website.
User Interactions	- The volunteer coaches communicate the attendance data of the teams to the program staff via paper based attendance sheets. - The data of the girls who register for the program is provided by the Race Planner.	- The volunteer coaches will use the mobile application to check-in the girls and other volunteer coaches. - The program staff will be able to export and monitor attendance data.
Infrastructure	- The current system does not use any hardware or software components. - It has a paper-based attendance tracking system.	- A mobile application - A web server - Database - Website
Stakeholder Essentials and Amenities	**Admin**: They have to go to the program sites to monitor the work of the program. Program analysis becomes difficult due to increased paperwork. **Program staff:** They have to manually enter the girl's data from the paper forms they submit. **Volunteer coaches:** Take the attendance on the paper.	**Admin:** They don't need to go to individual sites in person and they can monitor the work online via website. **Program staff:** They will have to manually enter girl's data but analysis becomes easier. **Volunteer coaches:** They have to enter the attendance via a mobile-phone application. Hence it

		reduces the paper-work.
Future Capabilities	- Automate the process of attendance tracking. - Provide faster and easier method to extend help to the sites. - Reduce paperwork.	- Data import facility from external database store - Simplify the business workflow so that volunteer can add the girls on the site to the program and check in the information about liability forms online. - We can include interactive maps for locating scheduled classes. - While taking attendance, volunteer can take a picture and upload it on the website as a proof of attendance.

3.3 Proposed New Operational Concept

3.3.1 Element Relationship Diagram
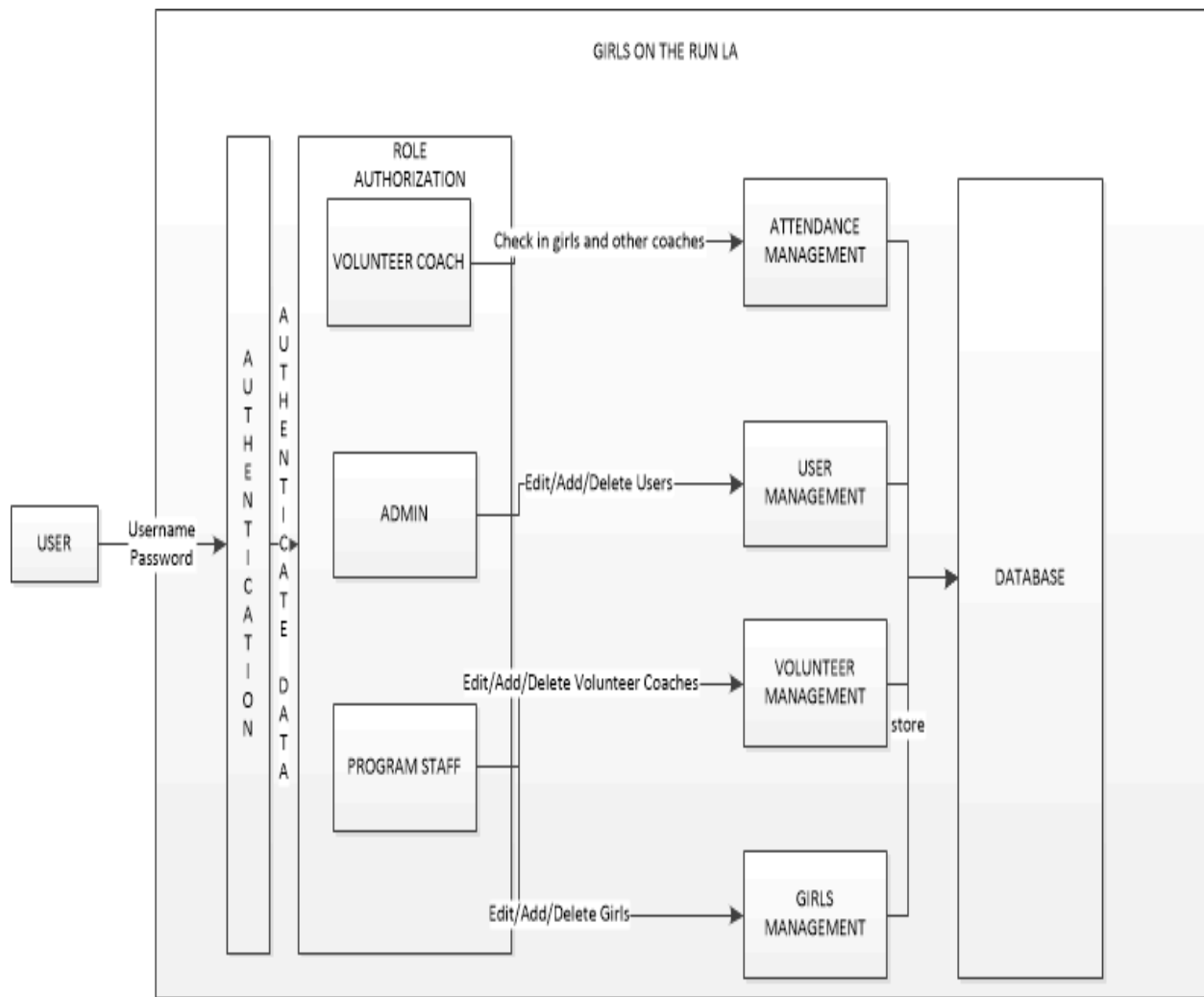
Figure 7: Element Relationship Diagram
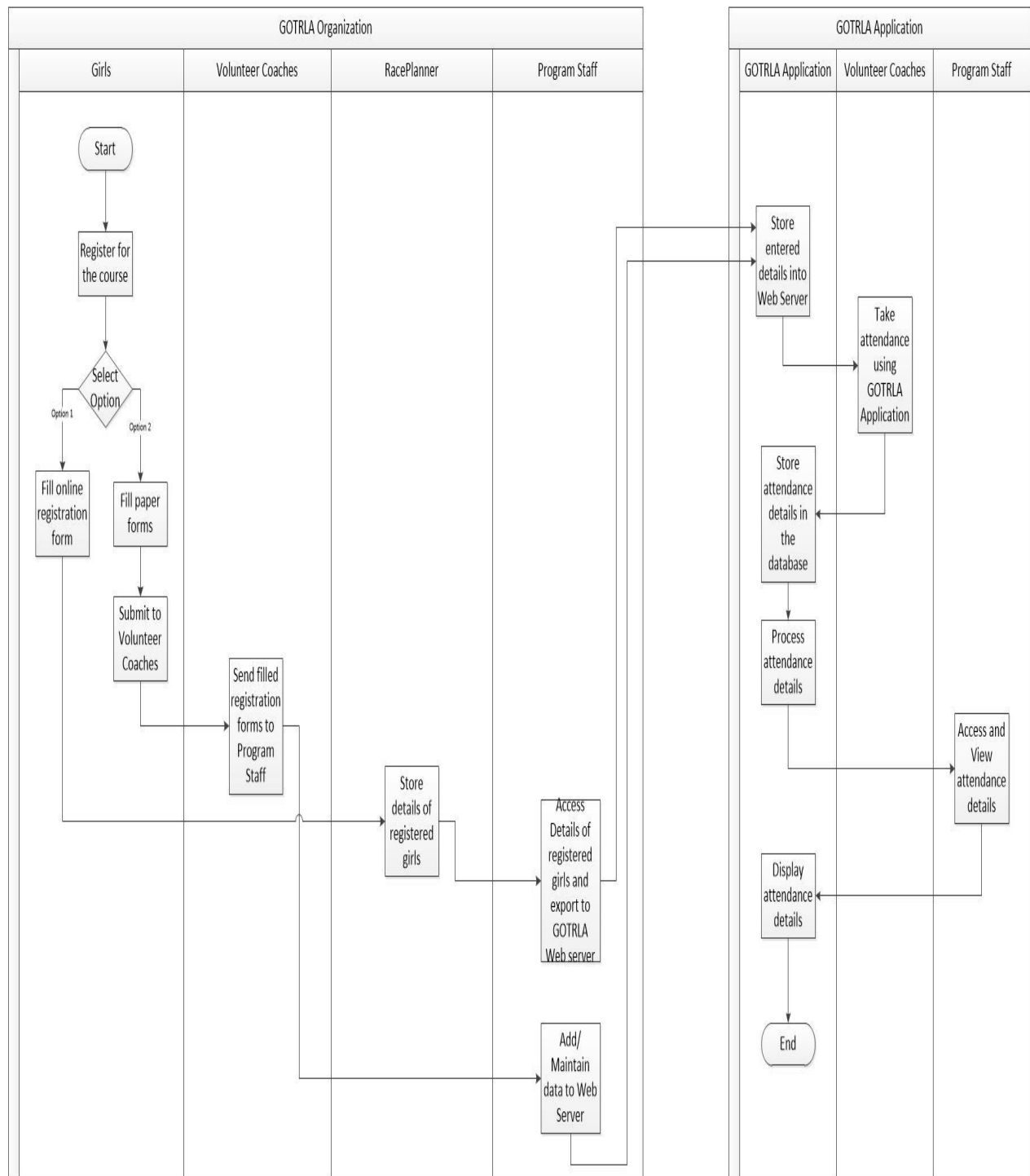
3.3.2   Business Workflows

Figure 8: Proposed Business Workflow Diagram of GOTRLA

3.4 Organizational and Operational Implications

3.4.1   Organizational Transformations

- The need of at least one smart phone with application installed on it at the program site with volunteer coach.
- The elimination of traditional paper based attendance sheet to check in girls attendance.
- The elimination of the need of program staff to visit every program site to monitor program progress and its quality.
- Program staff's access to attendance sheet online on the website.
- Ability to monitor the presence of volunteer coaches at the program site for the sessions.

3.4.2   Operational Transformations

- Having mobile application on the phone would help volunteer coaches to check in girl's attendance easily.
- Having mobile application on the phone would help volunteer coaches to check attendance of other volunteer coaches also
- Having the mobile application export the attendance data to the website would help program staff to monitor program progress easily.