

First Lego League of Tennessee

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Abstract

The purpose of this research is to effectively build a user-friendly, web-based registration and reporting application for the Tennessee FIRST LEGO League (FLL) Tournaments. The registration module of the application will collect information about the teams competing in the tournament. The application will employ role-based authentication to ensure that only authorized users can access the system's data and that individual users have access to only the data that is appropriate to the user assigned role. Authorized users will be able to add, edit, and delete data. The reporting module of the application will provide tournament coaches and organizers with aggregate data and easy-to-use output in the form of Excel spreadsheets. The application will be designed to accommodate future expansion and modification.

Goals

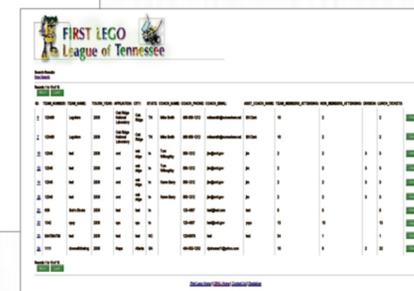
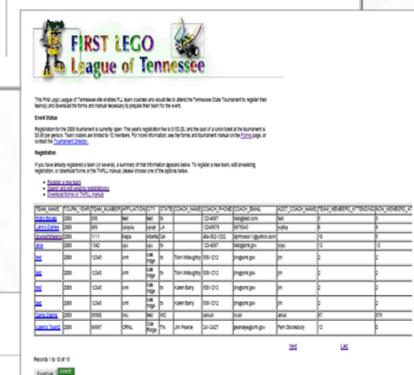
- Convenience – Tournament organizers and team coaches can collect, submit, and revise team related information on the web
- Information security – Use of role-based authentication ensures that only authorized users can access the system's data and that individual users have access to only the data that is appropriate to the user's role
- Improved reporting – Reporting module of application will provide tournaments coaches and organizers with aggregate data and easy-to-use output in the form of an Excel spreadsheet
- Upgrade path – Application will be designed to accommodate future expansion and modification

Processes

- Analyze and design logical flow of collection, retrieval, and reporting data
- Determine how collected data will be stored and secured
- Designed user interfaces (web pages)
- Program functionality to support collection, retrieval, and reporting of data
- Test application to ensure it meets requirements

Results

- View/Print – take the user to a view-only display of the team's information that is suitable for printing
- Role ID – will be used to identify people with special roles
- Edit – take user to a page where the team's information can be updated
- Insert – take user to a insert record page, the user would input team's information
- Delete – takes the user to an 'Are you sure' 'screen, asking if user really wants to delete the registration
- E-mail – system will send e-mail when the user:
 - enters a new registration
 - modifies a registration
 - deletes a registration
- Download – (only seen by the tournament director) will download all information about registered teams into Excel spreadsheet



Application of Results

- Registration and reporting application will be linked to ORNL-hosted Tennessee FLL Site (www.tennfll.org) and will be used to collect registrations for FLL tournaments in Fall 2006
- Application will provide a versatile base for future tournament registration requirements
- Customer expects that the use of this system will increase accuracy and integrity of data collected



Year	Team ID	Team Name	City	State	Coach	Assist. Coach	Members	Non-Members	Emergency	Leadership
2009	659	best	best	tn	best		123-4567			
2009	859	jujuyuu	jujuyuu	LA	Laury		12345678			
2009	1111	haga	Atlanta	GA	F T Harris		404-502-1232			
2009	1342	jujuy	jujuy	tn	jujuy		123-4567			
2009	12345	ami	oak ridge	tn	tom		555-1212			
2009	12345	ami	oak ridge	tn	tom		555-1212			
2009	12345	ami	oak ridge	tn			555-1212			
2009	85660	ou	best	MD	luouou					
2009	99999	ORNL	Oak Ridge	TN			241-2427			
2009	99999	ORNL	Oak Ridge	TN			241-2427			
2009	99999	ORNL	Oak Ridge	TN			241-2427			
2009	123456	Oak Ridge National Laboratory	Oak Ridge	TN	Mike Smith		855-555-1212			
2009	123456	Oak Ridge National Laboratory	Oak Ridge	TN	Mike Smith		855-555-1212			
2009	89478478	best	best	NYC	best		12345678			



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