

Pakistan Hajj Volunteer Group(PHVG) Saudi Arabia is the non-ethnic and non-political based volunteer organization to help out the guests of Almighty Allah during the Hajj in Mina and surroundings each year. This has started since long, however, it has been documented as an organization since 2011. Now the group works under the Pakistan Hajj Mission and the under the umbrella of Pakistan Embassy. The main theme behind the group activity is to register volunteers who are Pakistani national and are working/settled in the Kingdom and are willing to serve in what so ever capacity to guide the Hujjaj to their camps/buildings or help them to find their beloved ones etc.

The Functional Requirements:

The group is divided into various regions, like e.g. Riyadh, Dammam, Jeddah, Jazan etc. Each region has core committee comprising of all dedicated volunteers and the whole group contains selected members of the regional core committees. Volunteers from various regions are registered. Teams are formed from the volunteers who are working in various companies, have different education level and skills set. Each team has team leader and assistant team leader(s) who are selected based on certain criteria. The rest of the team is also formed based on certain known criteria like E.g. Each team has x number of volunteers who have past year(s) experience with PHVG, y number of volunteers who are good at map reading, and z number of volunteers who are good in health and can do the labor work like driving wheel chairs etc. The number of team members in each team is already known and can vary e.g. a team which overlooks the field work in Mina of various teams may comprise of 3-4 members while field teams may have 20/25/30 or 36 members. So All teams are assigned tasks which they perform in the Hajj Operation, like Call Center Management, Field Work to Guide Hajis, Building management, Supervision, etc. For the volunteers there are **various Events and Training sessions** through out the year like e.g. After Hajj get together/Dinner, **Feedback Meeting**, and before hajj Training sessions (at various locations and times conducted by the core committee members of that region). **Volunteers have attendance for the event/session**. Transportation and stay arrangements are also made. **Volunteers are allotted the Vehicle numbers** (e.g. Bus number and Seat number). Volunteers can also be shuffled/dropped/added from/to (a) team and (b) vehicles through the system.

Timeline of events should also be added, like the Activities Planned and Activities conducted, Monthly and weekly basis.

The core committee members should have an emergency/last moment quota of volunteers which should last say until 2 weeks before the Hajj.

The Core Committee members should have their own consoles on which they can view the Job assigned to them, the priorities of task(s) and Percentage completion etc.

Description

The portal system not only records the volunteer information, but also guides them about the whole process of the Hajj Operation and activities being arranged for their participation and knowledge.

E.g. The volunteers are asked to register on the portal. They enter their information, recent snap and soft copy of their Residence Card. They can then see on the system that what are the next steps. The steps are

1. Registration
2. Training (Eligible to attend) should be able to view that when and where he attended the training session(s), if attended. And what are the upcoming ones. (Volunteers may go for quizzes or Practice if they have attended the training)
3. Selected for the team formation (or not)
4. Team # allocated, Team leader details and Highlighted post in Mina
5. Bus/Vehicle number (To and From Makkah)
6. Final Departure date/time, place to gather, Volunteer kit and card collection time/place/person etc.

There should also be a picture gallery where all the old snaps are available. A volunteer could also upload images but must be approved by Admin before showing them up.

The Registration For each volunteer should be in the form of short forms with save and next options so that if their internet connection gets disturbed they should not rewrite all information. The registration form should also allow them to add any kind of image (jpg, png, tiff etc) and should also provide the preview and cropping facility if possible. In the backend system should save all images in a uniform extension.


Development Tools

We have selected MS. ASP.NET 2015 for the Application Front End Development and MS. SQL Server 2014 for the System Database.


Database Tables

Following are the database tables designed in the MS. SQL Server 2014, The Abstract Entity Relationship Diagram is also attached for the review.

Volunteers

	Column Name	Data Type	Allow Nulls
	VolunteerID	bigint	<input type="checkbox"/>
	IqamaNo	nvarchar(10)	<input type="checkbox"/>
	Name	nvarchar(300)	<input checked="" type="checkbox"/>
	IqamaExpiryDate	nvarchar(50)	<input checked="" type="checkbox"/>
	DoB	date	<input checked="" type="checkbox"/>
	MobileNo	nvarchar(10)	<input checked="" type="checkbox"/>
	PastExperience	int	<input checked="" type="checkbox"/>
	Education	nvarchar(100)	<input checked="" type="checkbox"/>
	CompanyName	nvarchar(200)	<input checked="" type="checkbox"/>
	Profession	nvarchar(200)	<input checked="" type="checkbox"/>
	Skills	nvarchar(100)	<input checked="" type="checkbox"/>
	Allergies	nvarchar(MAX)	<input checked="" type="checkbox"/>
	PrefferedJob	nvarchar(100)	<input checked="" type="checkbox"/>
	EmergencyContactPerson	nvarchar(200)	<input checked="" type="checkbox"/>
	ECPRelation	nvarchar(200)	<input checked="" type="checkbox"/>
	ECPMobile	nvarchar(15)	<input checked="" type="checkbox"/>
	RegionID	int	<input checked="" type="checkbox"/>
	PicturePath	nvarchar(200)	<input checked="" type="checkbox"/>
	IqamaPath	nvarchar(200)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

YearlyRegistration

	Column Name	Data Type	Allow Nulls
	RegistrationID	bigint	<input type="checkbox"/>
	Name	nvarchar(MAX)	<input checked="" type="checkbox"/>
	HijriYear	nvarchar(50)	<input checked="" type="checkbox"/>
	GregorianYear	nvarchar(50)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

VolunteerRegistration

	Column Name	Data Type	Allow Nulls
▶ 🔑	RegistrationID	bigint	<input type="checkbox"/>
🔑	VolunteerID	bigint	<input type="checkbox"/>
	AvailableFrom	nvarchar(20)	<input checked="" type="checkbox"/>
	AvailableTo	nvarchar(20)	<input checked="" type="checkbox"/>
	RegionID	bigint	<input checked="" type="checkbox"/>
	VehicleIDTo	bigint	<input checked="" type="checkbox"/>
	VehicleIDFrom	bigint	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

BlackListed

	Column Name	Data Type	Allow Nulls
🔑	BListID	bigint	<input type="checkbox"/>
	VolunteerID	bigint	<input checked="" type="checkbox"/>
	Remarks	nvarchar(MAX)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Login

	Column Name	Data Type	Allow Nulls
▶ 🔑	LoginID	bigint	<input type="checkbox"/>
	UserName	nvarchar(50)	<input checked="" type="checkbox"/>
	Password	nvarchar(100)	<input checked="" type="checkbox"/>
	RoleID	bigint	<input checked="" type="checkbox"/>
	VolunteerID	bigint	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Roles

	Column Name	Data Type	Allow Nulls
▶ 🔑	RoleID	bigint	<input type="checkbox"/>
	RoleName	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Languages

	Column Name	Data Type	Allow Nulls
▶ 🔑	LanguageID	bigint	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

VolunteerLanguages

	Column Name	Data Type	Allow Nulls
▶ 🔑	VolunteerID	bigint	<input type="checkbox"/>
🔑	LanguageID	bigint	<input type="checkbox"/>
	Proficiency	nvarchar(100)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Regions

	Column Name	Data Type	Allow Nulls
▶ 🔑	RegionID	int	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

City

	Column Name	Data Type	Allow Nulls
	CityID	bigint	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(300)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Suburb

	Column Name	Data Type	Allow Nulls
PK	SuburbID	bigint	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(300)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

CoreCommittee

	Column Name	Data Type	Allow Nulls
	CommitteeID	bigint	<input type="checkbox"/>
	Title	nvarchar(200)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
	RegionID	int	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

CoreCommitteeVolunteers

	Column Name	Data Type	Allow Nulls
PK	CommitteeID	bigint	<input type="checkbox"/>
FK	VolunteerID	bigint	<input type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

CoreTeams

	Column Name	Data Type	Allow Nulls
PK	CoreTeamID	bigint	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
	TeamLead	bigint	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

CoreTeamMembers

	Column Name	Data Type	Allow Nulls
🔑	CoreTeamID	bigint	<input type="checkbox"/>
🔑	MemberID	bigint	<input type="checkbox"/>
	Remarks	nvarchar(MAX)	<input checked="" type="checkbox"/>
▶	<input type="text"/>		<input type="checkbox"/>

CoreTasks

	Column Name	Data Type	Allow Nulls
🔑	CoreTaskID	bigint	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
▶	<input type="text"/>		<input type="checkbox"/>

CoreTeamTasks

	Column Name	Data Type	Allow Nulls
🔑	CoreTeamID	bigint	<input type="checkbox"/>
🔑	CoreTaskID	bigint	<input type="checkbox"/>
▶	<input type="text"/>		<input type="checkbox"/>

Meeting

	Column Name	Data Type	Allow Nulls
🔑	MeetingID	bigint	<input type="checkbox"/>
	CommitteeID	bigint	<input checked="" type="checkbox"/>
	MeetingDate	date	<input checked="" type="checkbox"/>
	Agenda	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Remarks	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Decisions	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Venue	nvarchar(MAX)	<input checked="" type="checkbox"/>
▶	<input type="text"/>		<input type="checkbox"/>

MeetingAttendance

	Column Name	Data Type	Allow Nulls
🔑	AttendanceID	bigint	<input type="checkbox"/>
	MeetingID	bigint	<input checked="" type="checkbox"/>
	MemberID	bigint	<input checked="" type="checkbox"/>
	AttendanceStatus	nvarchar(100)	<input checked="" type="checkbox"/>
▶			<input type="checkbox"/>

Message

	Column Name	Data Type	Allow Nulls
🔑	MessageID	bigint	<input type="checkbox"/>
	Message	nvarchar(MAX)	<input checked="" type="checkbox"/>
	GeneratedBy	bigint	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

VolunteerMessage

	Column Name	Data Type	Allow Nulls
🔑	MessageID	bigint	<input type="checkbox"/>
🔑	VolunteerID	bigint	<input type="checkbox"/>
	MsgDate	date	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Team

	Column Name	Data Type	Allow Nulls
🔑	TeamID	bigint	<input type="checkbox"/>
	TeamName	nvarchar(100)	<input checked="" type="checkbox"/>
	TotalVolunteers	int	<input checked="" type="checkbox"/>
	TeamLead	bigint	<input checked="" type="checkbox"/>
	AssistantTeamLead	bigint	<input checked="" type="checkbox"/>
	DeploymentID	bigint	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

TeamMembers

	Column Name	Data Type	Allow Nulls
▶ 🔑	TeamID	bigint	<input type="checkbox"/>
🔑	VolunteerID	bigint	<input type="checkbox"/>
			<input type="checkbox"/>

Tasks

	Column Name	Data Type	Allow Nulls
▶ 🔑	TaskID	bigint	<input type="checkbox"/>
	Title	nvarchar(100)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Remarks	nvarchar(300)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

TeamTasks

	Column Name	Data Type	Allow Nulls
🔑	TeamID	bigint	<input type="checkbox"/>
🔑	TasksID	bigint	<input type="checkbox"/>
	Comments	nvarchar(MAX)	<input checked="" type="checkbox"/>
▶			<input type="checkbox"/>

Deployoment

Column Name	Data Type	Allow Nulls
DeploymentID	bigint	<input type="checkbox"/>
Name	nvarchar(100)	<input checked="" type="checkbox"/>
Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
isFieldPost	bit	<input checked="" type="checkbox"/>
PostName	nvarchar(100)	<input checked="" type="checkbox"/>
GISLocation	nvarchar(200)	<input checked="" type="checkbox"/>
RelevantInfo	nvarchar(MAX)	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Training

	Column Name	Data Type	Allow Nulls
▶ 🔑	TrainingID	bigint	<input type="checkbox"/>
	Title	nvarchar(200)	<input checked="" type="checkbox"/>
	Venue	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Coordinates	nvarchar(100)	<input checked="" type="checkbox"/>
	TrainerID	nvarchar(50)	<input checked="" type="checkbox"/>
	TrainingDate	date	<input checked="" type="checkbox"/>
	RegionID	int	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

TrainingAttendance

	Column Name	Data Type	Allow Nulls
▶ 🔑	TrainingID	bigint	<input type="checkbox"/>
🔑	VolunteerID	bigint	<input type="checkbox"/>
	Status	nvarchar(50)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Vehicles

	Column Name	Data Type	Allow Nulls
▶ 🔑	VehicleID	bigint	<input type="checkbox"/>
	RegNo	nvarchar(20)	<input checked="" type="checkbox"/>
	OwnerID	nvarchar(50)	<input checked="" type="checkbox"/>
	DriverID	nvarchar(10)	<input checked="" type="checkbox"/>
	DriverName	nvarchar(50)	<input checked="" type="checkbox"/>
	RegistrationExpiry	date	<input checked="" type="checkbox"/>
	isVolunteer	bit	<input checked="" type="checkbox"/>
	VolunteerID	bigint	<input checked="" type="checkbox"/>
	VehicleDetailID	bigint	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

VehicleDetails

	Column Name	Data Type	Allow Nulls
PK	VehicleDetailID	bigint	<input type="checkbox"/>
	VehicleType	nvarchar(50)	<input checked="" type="checkbox"/>
	Capacity	int	<input checked="" type="checkbox"/>
	Model	nchar(10)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Event

	Column Name	Data Type	Allow Nulls
PK	EventID	bigint	<input type="checkbox"/>
	Title	nvarchar(200)	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Venue	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Coordinates	nvarchar(100)	<input checked="" type="checkbox"/>
	EventDate	date	<input checked="" type="checkbox"/>
	RegionID	int	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

EventAttendance

	Column Name	Data Type	Allow Nulls
PK	VolunteerID	bigint	<input type="checkbox"/>
FK	EventID	bigint	<input type="checkbox"/>
	Status	nvarchar(50)	<input checked="" type="checkbox"/>
			<input type="checkbox"/>

Accomodation

	Column Name	Data Type	Allow Nulls
🔑	AccomodationID	bigint	<input type="checkbox"/>
	Name	nvarchar(100)	<input checked="" type="checkbox"/>
	Address	nvarchar(300)	<input checked="" type="checkbox"/>
	GpsCoordinates	nvarchar(200)	<input checked="" type="checkbox"/>
	Descriptions	nvarchar(MAX)	<input checked="" type="checkbox"/>
	Rooms	bigint	<input checked="" type="checkbox"/>
	Capacity	nvarchar(50)	<input checked="" type="checkbox"/>
▶			<input type="checkbox"/>

VolunteerAccomodation

	Column Name	Data Type	Allow Nulls
🔑	VolunteerID	bigint	<input type="checkbox"/>
🔑	RoomNo	nvarchar(50)	<input type="checkbox"/>
🔑	RegistrationID	bigint	<input type="checkbox"/>
	AccomodationID	bigint	<input checked="" type="checkbox"/>
	Description	nvarchar(MAX)	<input checked="" type="checkbox"/>
▶			<input type="checkbox"/>