

Application Design and Software Structure Report

UrKidzWorld app

1. Introduction

In today's world everyday school activities especially elementary ones, form an integral part of daily life, for both parents and teachers. This little world takes most of their time and attention for the 5 days of the week like school drop, pick up, newsletter, absence notification, reminders, homework help, ideas, projects, volunteers etc. **urKidzWorld** app is an elementary school app that helps parents and teachers to collaborate effectively thus making their school world function efficiently.

- 1) School Info display such as Newsletter/reminders/events for the month.
- 2) Event notification
- 3) Teacher's corner: Displays the Info related to their class.
 - Homework details
 - Send absence notification.
 - Volunteers for class level activities
 - Gallery
 - Edit student's page.
- 4) Volunteer sign up for events in school level. Latest status update of signup.
- 5) Parent's corner: Displays the info of their child's class.
 - Send absence notification.
 - Place drop pick up request.
 - Pull Child's Report:
 - Send note to teacher in student's page.
- 6) New event/STEM Club Activities:
 - Idea Page: This feature of application invites events/club ideas small experiments etc., from all parents. Also parents and teachers can vote and provide their comments.

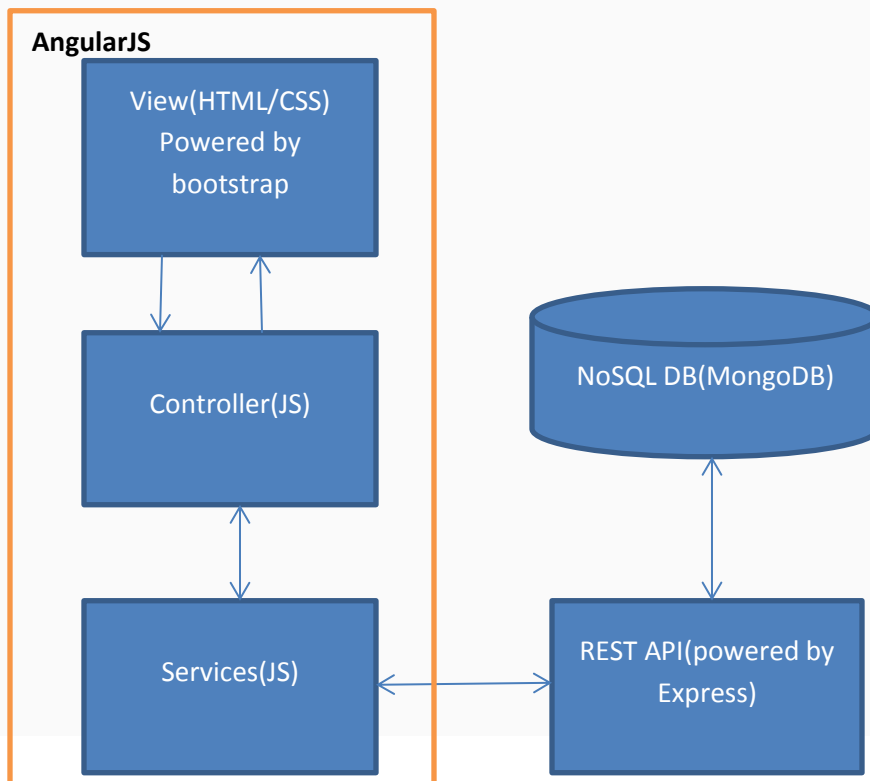
2. Design and Implementation

2.1 The REST API Specification

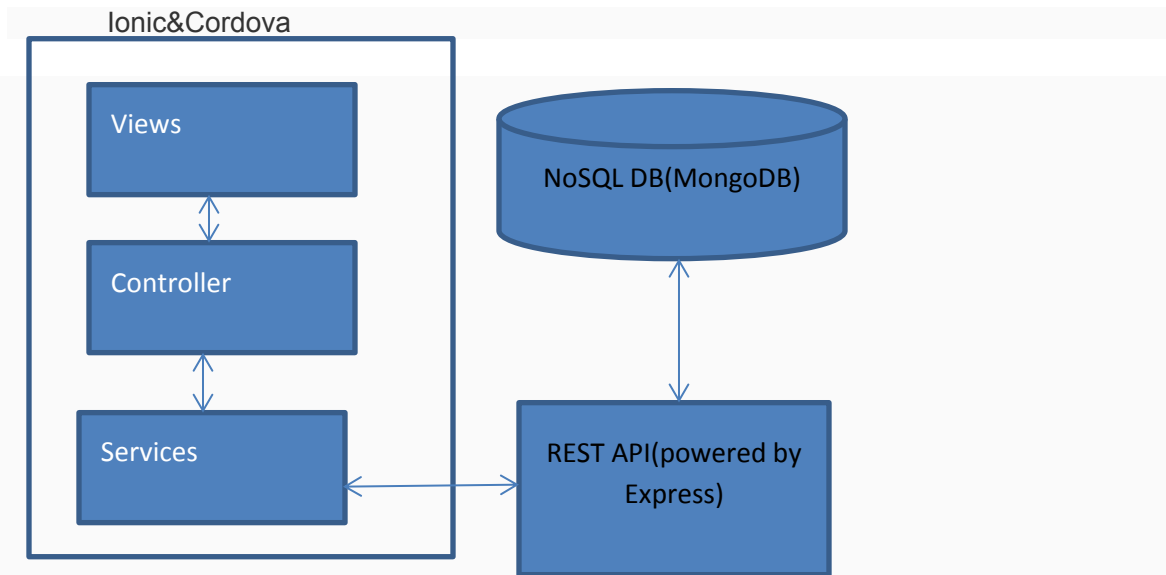
ENDPOINTS	HTTP	Result
/users/register	POST	Save details
/users/Login	GET	Fetch details
/classroom/id	GET	Fetch details
	PUT	Update grades
/notes/id	GET	Fetch details
	POST	Create notes
/absenceNotes/id	GET	Fetch Notes
/absenceNotes/id	POST	Create Notes
/students/id	GET	Fetch details
/students/id	PUT	Update grades
/stemclub/id	POST,GET,PUT	Create,fetch and updatedetails
/events/	GET,POST	Create and fetch event details
/events/id	GET,POST,PUT	Create,fetch and updatedetails

2.2 Front-end Architecture Design

Web application



Hybrid Mobile Application



2.3 Database Schemas, Design and Structure

User

Fields	Type	Required	Unique	Values
userId	Number	Yes	Yes	
userFirstName	String	Yes	No	
userType	String	Yes	No	Parent,Teacher,Admin
userLastName	String	Yes	No	
password	String	Yes	No	
OauthId	String	Yes	No	

OauthToken	String	Yes	No	
Address	String	Yes	No	
Phone Number	Number	Yes	No	
Email Id	String	Yes	No	

Student

Fields	Type	Required	Unique
StudentNumber	Number	Yes	Yes
Student Name	String	Yes	No
ParentId1	Number	Yes	No
ParentId2	Number	Yes	No
ClassRoomNumber	Number	Yes	No
Grade	Number	Yes	No
ScoreMath1	Number	No	No
ScoreMath2	Number	No	No
ScoreMath3	Number	No	No
ScoreScience1	Number	No	No
ScoreScience2	Number	No	No
ScoreScience3	Number	No	No

ScoreReading1	Number	No	No
ScoreReading2	Number	No	No
ScoreReading3	Number	No	No
ScoreWriting1	Number	No	No
ScoreWriting2	Number	No	No
ScoreWriting3	Number	No	No
ScoreSocialStudies1	Number	No	No
ScoreSocialStudies2	Number	No	No
ScoreSocialStudies3	Number	No	No
ScoreLifeSkills1	Number	No	No
ScoreLifeSkills2	Number	No	No
ScoreLifeSkills3	Number	No	No

ClassRoom

Field	Type	Required	Unique
ClassRoom	Number	Yes	Yes
TeacherID	Number	Yes	No
ImageSrc1	String	Yes	No
ImageSrc2	String	Yes	No
ImageSrc3	String	Yes	No

ImageSrc4	String	Yes	No
ImageSrc5	String	Yes	No
ImageSrc6	String	Yes	No
ImageSrc7	String	Yes	No
ImageSrc8	String	Yes	No
HomeworkString	String	Yes	No

Notes

Field	Type	Required	Unique	
FromId	Number	Yes	No	
Told	Alphanumeric	Yes	No	AIIP(All Parents)
Detail	String	Yes	No	
Classroom	Number	Yes	No	
Student Id	Number	No	No	
Date	Date	Yes	No	

Absence Notes

Field	Type	Required	Unique
From Id	Number	Yes	No
To Id	Numeric	Yes	No
Detail	String	Yes	No
Date From	date	Yes	No
DateTo	Date	Yes	No
StudentId	Number	Yes	

Events

Field	Type	Required	Unique
EventId	Number	Yes	Yes
EventName	String	Yes	No
Event DateTimeFrom	Date	Yes	No
Event DateTimeTo	Date	Yes	No
Venue	String	Yes	No
Featured	char	Yes	No
ImageSrc	String	No	No

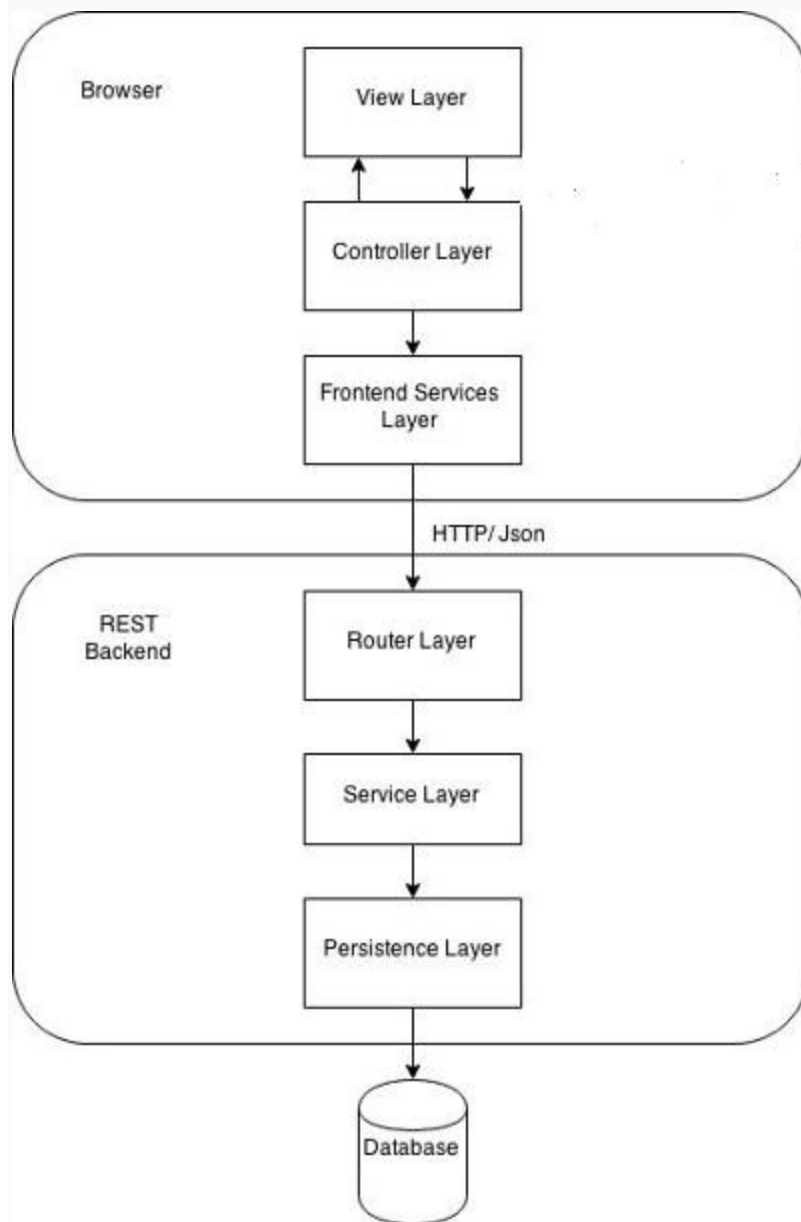
Volunteers

Field	Type	Required	Unique
VolunteerId	Number	Yes	No
VolunteerName	String	Yes	No
Phone Number	Number	Yes	No
Email Id	String	Yes	No
Event Id	Number	Yes	No
DateTimeFrom	Date	Yes	No
DateTimeTo	Date	Yes	No
Details	String	No	No

STEM Club

Field	Type	Required	Unique
IdeaId	Number	Yes	Yes
IdeaName	String	Yes	No
IdeaDetails	String	Yes	No
IdeaType	Char	Yes	No
IdeaBy	Number	Yes	No
UpVotes	Number	No	No
DownVotes	Number	No	No

2.4 Communication



3. Conclusions:

First web app using angular JS is designed and implemented. Afterwards, use the same MVC layers, move to the respective folders in Ionic framework and minor changes done in controllers and views to support ng cordova and ionic capabilities.

4. References

Coursera Full stack web development course.

<http://ionicframework.com/docs/guide/preface.html>