

Kadi Sarva Vishwavidyalaya
Master of Computer Application (MCA)
Year – II (Semester – IV) (W.E.F. August 2014)

**Subject Name: Mobile Cross Platform Development Using PhoneGap -
MCA-406(A)**

Sub Total Credit	Teaching scheme		Examination scheme				Total Marks
	(per week)		MID	CEC	External		
	Th	Pr	Th	Th	Th.	Pr.	
3	3	0	25	25	50	0	100

Course Description:

PhoneGap is a growing and leading open-source mobile web apps development framework that lets developers build JavaScript and HTML5-based web applications with native wrappers for more than six mobile platforms, including iOS, Android, and BlackBerry.

This framework lets you build HTML- and JavaScript-based apps and still take advantage of native mobile device capabilities like camera, localStorage, geolocation, storage and much more, irrespective of the mobile platform you target. It also lets you use more specialized JavaScript frameworks like jQuery Mobile and more.

Course Objectives: PhoneGap teaches the fundamentals and strategies behind cross-platform mobile application development. Instead of learning languages like Objective-C, focus on building apps from day one for Android, iOS, WebOS - without the complexities of these platforms.

Pre-requisites: Knowledge of object oriented programming, basi HTML and database concepts

Detailed Syllabus

Unit 1	<ul style="list-style-type: none"> • Introduction to PhoneGap <ul style="list-style-type: none"> ○ A Little PhoneGap History, Why Use PhoneGap?, How PhoneGap Works, Designing for the Container, Writing PhoneGap Applications, Building PhoneGap Applications, PhoneGap Limitations, PhoneGap Plug-Ins, Getting Support for PhoneGap, PhoneGap Resources, Hybrid Application Frameworks • PhoneGap Development, Testing, and Debugging <ul style="list-style-type: none"> ○ Hello, World!, PhoneGap Initialization, Leveraging PhoneGap APIs, Enhancing the User Interface of a PhoneGap Application, Testing and Debugging PhoneGap Applications, Dealing with Cross-Platform Development Issues, API Consistency 	20%
Unit 2	<ul style="list-style-type: none"> • Part II. PhoneGap Developer Tools • Configuring an Android Development Environment for PhoneGap <ul style="list-style-type: none"> ○ Installing the Android SDK, Eclipse Development Environment Configuration, Creating an Android PhoneGap Project, Testing Android PhoneGap Applications • Configuring a Windows Phone Development Environment for PhoneGap <ul style="list-style-type: none"> ○ Installing the Windows Phone Development Tools, Creating a Windows Phone PhoneGap Project, Testing Windows Phone PhoneGap Applications • Using PhoneGap Build <ul style="list-style-type: none"> ○ The Fit, Getting Started, Configuration, Creating an Application for PhoneGap Build, Creating a PhoneGap Build Project, Dealing with Build Issues, Testing Applications, Debug Mode 	20%
Unit 3	<ul style="list-style-type: none"> • Part III. PhoneGap APIs –1 <ul style="list-style-type: none"> • Accelerometer <ul style="list-style-type: none"> ○ Querying Device Orientation, Watching a Device's Orientation • Contacts 	20%

	<ul style="list-style-type: none"> ○ Creating a Contact, Searching for Contacts, Cloning Contacts, Removing <i>Contacts</i> ● DEVICE, THE NETWORK, AND NOTIFICATIONS 	
Unit 4	<ul style="list-style-type: none"> ● Part III. PhoneGap APIs –2 ● Events <ul style="list-style-type: none"> ○ Creating an Event Listener, deviceready Event, Application Status Events, Events, Button Events ● File <ul style="list-style-type: none"> ○ Available Storage Types, Accessing the Device's File System, Reading Directory Entries, Accessing FileEntry and DirectoryEntry Properties, Reading/Writing Files, Deleting/Copying/Moving Files and Directories, Uploading Files to a Server 	20%
Unit 5	<ul style="list-style-type: none"> ● Part III. PhoneGap APIs –3 ● Media <ul style="list-style-type: none"> ○ The Media Object, Playing Audio Files, Recording Audio Files, Seeing Media in Action ● Storage <ul style="list-style-type: none"> ○ Local Storage, SQL Database 	20%

Text Book : Beginning Phonegap, **Publisher:** Wrox, **By:** Thomas Myer

Reference Books :

1. "Beginning PhoneGap, Mobile Web Framework for JavaScript and HTML5"
2. PhoneGap 2.x Mobile Application Development
3. PhoneGap Mobile Application Development Cookbook
4. 20 Recipes for Programming PhoneGap, Building Mobile Applications with Java

Unit wise coverage from Text Book

1. Unit 1: Chapter -1,2
2. Unit 2: Chapter-3
3. Unit 3: Chapter-5,6,13
4. Unit 4: Chapter 4,12
5. Unit 5: Chapter – 9,11
