**Upload Image using Webcam**

**Introduction**

Naukri supports uploading image from client’s machine. This project will let the client to click a picture and upload it directly using the Webcam on their machine. WebRTC has been used to implement this. WbRTC (Web Real-Time Communication) is an API definition which will enable browser-to-browser communication without use of any third party plugins.

**What is WebRTC (Web Real-Time Communications)?**

WebRTC is a free, open project that enables web browsers with Real-Time Communications (RTC) capabilities via simple JavaScript APIs. The WebRTC components have been optimized to best serve this purpose.

**Usage**

The RTC is a technology that supports audio/video streaming and data sharing between browser clients (peers). As a set of standards, WebRTC provides any browser with the ability to share application data and perform teleconferencing peer to peer without the need to install plug-ins or third-party software.

WebRTC components are accessed with JavaScript APIs. Currently in development are the Network Steam API, which represents an audio or video data stream, and the PeerConnection API, which allows two or more users to communicate browser-to-browser. Also under development is a DataChannel API that enable communication of other types of data for real-time gaming, text chat, file transfer, and so forth.

WebRTC implements three APIs:

* MediaStream (aka getUserMedia)
* RTCPeerConnection
* RTCDataChannel

**MediaStream**

**getUserMedia** is available in Chrome, Opera and Firefox. A MediaStream object is typically set as a simple URL strong which can be used to reference between stored in a DOM File or Blob object with window.URL.createObjectURL(). The MediaStream object is further distinguished as either a MediaStreamTrack or a LocalMediaStream.

A MediaStream consists of zero or more MediaStreamTrack objects, which comprise one or more channels, and which are contained in a MediaStreamTrackList. Each MediaStreamTrack may have one or more channels. The channel represents the smallest unit of a media stream, such as an audio signal.

MediaStream objects have an input and output. A LocalMediaStream is a MediaStream object generated by getUserMedia(), and which has as its source input the user’s camera or microphone. The output described how the consumer uses the MediaStream object. The consumer is either of the media elements, <audio> or <video>, or the PeerConnection API.

Example: <http://simpl.info/getusermedia/>

**PeerConnection API**

The PeerConnection API, represented chiefly by the RTCPeerConnection objet, provides for the exchange of MediaStream object data between browser instances (peers) across a secure channel. The process starts with signaling from one peer to others through a server. The signaling protocol is determined by the application, and once established. Encapsulated in the RTCSessionDescription object.

**DataChannel API**

The DataChannel API, represented by the RTCDataChannel and leveraged through RTCPeerConnection, provides for the exchange or binary data between peers. A data channel can be reliable, semi reliable and not reliable.

Features

* Introduction to WebRTC API
* Capture Image from Webcam and upload them without use of any third-party plugin
* Use of HTML5 tools, like <canvas>, <audio>
* HTML5 File API

**Implementation**

getUserMedia() has been implemented on MRP page, i.e., Manage Recruiter Profile page. Here user can update photo on fly by capturing its picture from their machine’s camera.

**Scope**

This feature can be implemented on photo uploading action for the following applications on Naukri:

* MNJ website
* Resman websitw
* MNJ mobile site
* Resman mobile site
* CSM

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