Analysis Of Alternatives

To decide which programming language and platform to use, the following criteria were determined to be most important:
-   Team knowledge
-   Usability
-   Monetary cost of the platform
-   Limitations of the language
-   Advantages of the language

Programming Language and Platform	Team Knowledge	Usability	Cost of platform	Limitations of language	Advantages of language
Desktop Java Application	Limited experience throughout team, and no experience in creating a UI in Java.	- Runs natively on all main PC operating systems	No cost	Statically typed, harder syntax	Object-oriented. Easy to create modular, reusable code
Web Application (JavaScript, CSS, HTML)	Good experience throughout team members.	- Runs in client browser. Supported by majority of browsers. - Native JSON support - Many free CSS and HTML packages for building UI - Can be accessed on both mobile devices and on PC - Event based programming language. (When user types in URL into search field)	Web-hosting costs	Browser support and performance can vary between the browser choice of different users	Easy to learn. A lot of resources online. (i.e forums, video tutorials, stack overflow etc..) Does not require compilation Easy to test and debug
Desktop Python	Every member has	- Native JSON support	No cost	- Difficult to build a UI	- Fast to program/code

Application	experience in Python	- Accessible and extensive libraries - Popular with web app development		- Integrating Python with JSON is more difficult than Javascript	
Native Android (Java) or IOS (Swift)	Limited to no experience for most team members	- IDE/SDK can make UI building simple and easy - Integration of code with interface is quick	Publishing application on app stores and marketplaces can infer costs	- Only available for use on mobile platforms	Developed for a specific platform, so can take full advantage of operating system and device capabilities

Upon careful consideration of these criteria, we decided that Javascript would be most appropriate for the task. This is because our target platform is a locally hosted website, with mobile support. Javascript is a language specially designed for web development, and to be used with HTML and CSS for interactive UI. It is also client-sided, and supported by all major browsers on windows, ios and android. Furthermore, all team members have prior experience and good knowledge of Javascript, HTML and CSS.