Technical Requirements Document

Link Exchange Software

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Change Control	Author	Version	Change Reference
August 29, 2021	Samer Bechara	1.0	No previous document. Created initial draft based on the ideas in my head

Project Overview and Goals

We are building a website that will help website owners facilitate link building for their websites. The purpose is to create a website where users can go in, post their articles and ask for backlinks.

If you are not familiar with link building, please read this guide, as it explains everything from A to Z: https://www.semrush.com/blog/link-building/

Main Software Features

This section lists the functionality the system should achieve. Subsequent sections discuss each of the requirements in the following table in details

Reqmt ID	Description
R1.1	User Registration
R1.2	Website Submission
R1.3	Request Backlinks
R1.4	Points system

Feature Details – User Registration

Reqmt ID	Description
R1.5	A user fills a form with First Name, Last Name,Email address and password
R1.6	An email is sent to the user's inbox to confirm the email address
R1.7	Once confirmed, the user status is changed to "Active" and they can start submitting their websites available for backlinking
R1.8	User should have the ability to change password
R1.9	"Forgot Password" functionality should be present in order reset lost password

Feature Details – Website submission

Reqmt ID	Description
R1.10	Logged in users should have the ability to add/view/edit/delete websites
R1.11	Each Website contains the following fields: - Website URL - Time to add (the time it takes to add a link from the time it is requested, e.g. 24 hours, or 3 days) - Sample URL: how the final link will look. Ex: site.com/blog/five-ways-to-eat-hummus/ - Checkbox: I understand that when I give backlinks from this site I won't be paid but I will get points that I can use within the system to get backlinks for my site

R1.12	Upon submission , each domain's rating is fetched from Ahrefs API and stored in our DB. To understand what a domain rating is read this article: https://ahrefs.com/blog/domain-rating/

R1.13	API access is only available to Ahrefs customers, but the call is very simple, and you will be given access upon project start.
	
	Example API Call:
	
	Request
	
	https://apiv2.ahrefs.com?from=domain_rating&target=ahrefs.com&mode=domain&output=json
	
	Response
	{
	  "domain": {
	    "domain_rating": 66,
	    "ahrefs_top": 3840
	  }
	}

Feature Details – Request Guest Post

Reqmt ID	Description
R1.14	Users should be able to browse websites and request guest posts from any of them
R1.15	Site owners have the ability to accept/reject backlink requests.
R1.16	Once approved, users will submit guest post details: - Title, e.g. Five Tips For Better Health - URL, e.g. /five-tips-for-better-health/ - Link to article: Just a simple link, no file uploads allowed
R1.17	Once added, the requester will approve or reject the guest post
R1.18	Requester can also request modifications to the post before approving/rejecting

Feature Details – Points System

Reqmt ID	Description
R1.19	Every time a site owner fulfills a request, points are added to his total point balance
R1.20	The number of points the user receives are based on his Domain Rating, for example, if Site A owner features a guest post on Site B, and the domain rating of Site B is 55, site B is granted 55 points
R1.21	Site B owner can from there use these points to receive guest posts from other sites
R1.22	A cron job should run once per week in order to update Domain Rating's from Ahref API for each of the sites that are stored in our database, as this score changes regularly

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