

Small Business Promotion Through Web Development

Student Researcher: Brandon L. Dunson

Advisor: Dr. Derek Petrey

Sinclair Community College

Departments of Computer & Electronic Engineering, and

Computer Informational Science

Abstract:

I am currently enrolled in a CIS 1350 (Web Development – HTML & CSS) and I would like to develop a website that would work in a way similar to GasBuddy, but instead refer people to locally-owned businesses and non-profits. The City of Dayton uses CityBOTS to update their information daily. CityBOTS™ is a software service which tracks minority utilization, contract compliance, and vendor certifications for entities maintaining DBE, MBE/WBE, SBE, or other business enterprise programs in Excel format. I started to develop a website and learned how to portray the data in digital map form.

Project Objectives:

My objective in this research was to connect data from reliable resources into a website for the promotion of locally-owned businesses and non-profits in the City of Dayton. The City uses the Procurement Enhancement Program to promote diverse businesses: “The City establishes aspirational and annual diversity goals that are placed on construction and goods and services bids. Minority-owned, women-owned and small disadvantaged businesses can certify with the City’s PEP program to assist the City with accomplishing [those] goals. When the City seeks diversity in the procurement process, PEP certified companies are contacted by the city or contractors interested in bidding.” (Dayton HRC)

I found a platform interface that I thought would be a good model for the website. (Fig 2) It is a JavaScript Google Analytics module inside an HTML page.

The screenshot shows the header of the RVA Office of Minority Business Development website. The header includes the City of Richmond logo (established 1737) and the text 'RVA RICHMOND VIRGINIA OFFICE OF MINORITY BUSINESS DEVELOPMENT'. Below the header is a navigation bar with 'MBD Business Directory' and a 'Back to OMBD Home' link. The main content area is titled 'MBD Business Directory Listing' and contains a search form with the following elements:

- Text: 'Please select search criteria to list for the directory's businesses'
- Form field: 'Company:
- Form field: 'Work Category:
- Text: 'then'
- Button: 'View the Report'

Below the search form, there is a notice: 'If you are a Minority Business Enterprise or an Emerging Small Business, and not listed in our Business Directory, we encourage you to register. Obtain the [MBD registration form](#) or the [ESB certification form](#).' A note at the bottom states: 'Note the definition of each is in the upper right corner of the respective form. If you meet the definition, complete the form and either mail or fax your information to our office. Our mailing address and fax number are in the upper left corner of each form.'

(Fig 2) [Richmond, Virginia Minority Business Directory Search Interface]

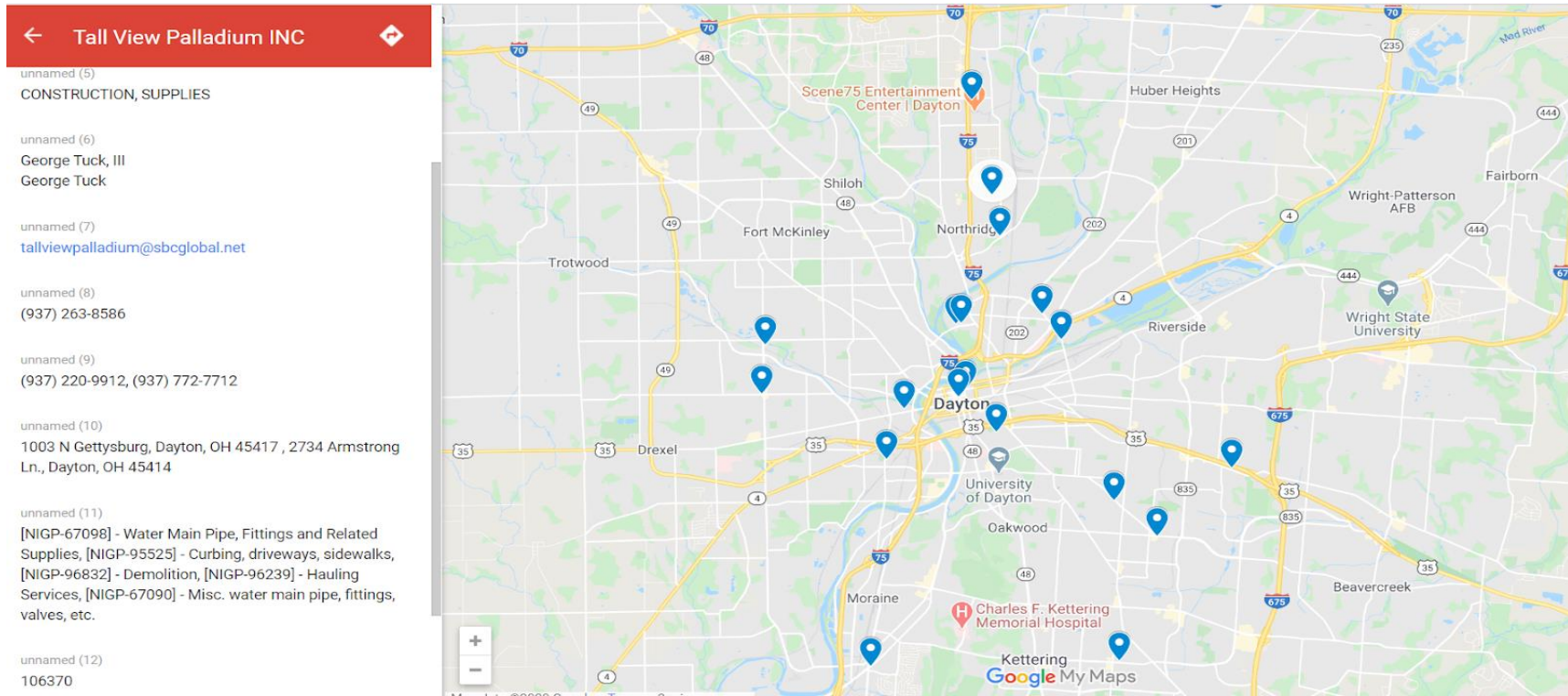
Results

I obtained the CityBOTS data for Dayton-local / minority-owned women-owned / small-business enterprises in Excel (Fig 1).

CityBOTS - PEP Certification List [135 - Current as of Saturday, March 28, 2020 at 12:21 AM]								
Vendor Name	Certifications				Categories		Contacts	
	SBE	WBE	DBS	Combined	Name	Email	Phone	
1st Advance Security and Investigations INC.	X	X	X	SERVICE	Daryl Johnson	daryljohnson1st@gmail.com	(937) 210-9010, (937) 443-2272	
A to Z Maintenance	X	X		CONSTRUCTION, SERVICE	Kenneth Block	kblock@wobn.com	(937) 830-2022	
Able & Affordable LLC	X		X	SERVICE, CONSTRUCTION	David Frederick David Fredrick	dffredrick2@yahoo.com	(937) 461-3470, (937) 313-2296	
Adrienne L. Heard	X	X	X	SERVICE	Adrienne Heard	aheard@heardmg.com, aheard@heardmg.com	(937) 837-5248, (937) 537-5275, (937) 837-4342	
Advanced Caulking LLC	X		X	SERVICE, CONSTRUCTION	Adrienne Heard	office@advancedcaulking.com		
Allied Technical Services dba Allied Pump Rentals	X			SERVICE, SUPPLIES, CONSTRUCTION	Douglas Sayre Donna Lansing	donna.lansing@alliedpumprentals.com	(513) 793-0499	
Anthony James Painting	X	X	X	SERVICE, CONSTRUCTION, SUPPLIES	Anthony James Sr Anthony James Anthony James Sr.	anthony@anthonyjamespainting.com, aj_trucks@yahoo.com, aj_truck@yahoo.com	(937) 383-7858, (937) 813-8024	
Apex Mechanical Systems Inc	X		X	CONSTRUCTION, SERVICE	Bob Maggee	rmaggee@apexmechsys.com	(537) 859-8300	
Associated Excavating, Inc.	X			CONSTRUCTION, SERVICE	Mark Maggee Carol VanZant	mllmagsocmo@aol.com, mlleerassocw@aol.com	(937) 833-5681	
Atelier Design LLC	X	X		SERVICE		aten@atelierdn.com		
Auzano Environmental LLC	X		X	SERVICE	Nikole Laskley	auzanosenvironmental@outlook.com	(937) 271-1126	
Barnett Mechanical Services LLC	X	X		CONSTRUCTION, SUPPLIES, SERVICE	John Barnett S Corp	jbarnett@barnettmechanicalservices.com	(614) 438-7556	
Belgray Inc	X			CONSTRUCTION	Joshua Boone	kjpp@belgrayinc.com	(937) 545-0077, (937) 366-6507	
Benchmark Industrial Supply LLC	X	X		SUPPLIES	Mary Walling	patry@benchmarkindustrial.com, ktown@benchmarkindustrial.com	(937) 325-1001	
Billy Beck Excavating Ltd	X			CONSTRUCTION	Billy Beck	bbeckavate@gmail.com, bbeckavate@stglocal.net	(937) 945-4101	

(Fig 1) [Current City of Dayton Database for PEP Program]

I also learned how to integrate an address database into Google Maps.



(Fig 3) [Screenshot of proposed output using Google Maps]

Conclusion:

I need to continue to learn CSS, HTML and JavaScript in order to further develop the website. I hope to keep the website up to date with the most recent information on the locally-owned businesses and non-profits in Dayton, Ohio.

Acknowledgments and References:

<https://citybots.com/Home/Links> - database from the City of Dayton for SBE / MBE / LBE

<http://daytonhrc.org/business-technical-assistance/certification/> - The City of Dayton HRC (Human Relations Council), Certification

<https://apps.richmondgov.com/applications/mbebusinessdirectory/Index.aspx> - The Richmond, Virginia Office of Minority Business Development, Minority Owned Business Directory

<https://www.networkworld.com/article/3303581/how-to-pin-a-pile-of-addresses-onto-a-google-map.html> - Sandra Henry-Stocker, Network World, How to Pin a Pile of Addresses onto a Google Map.