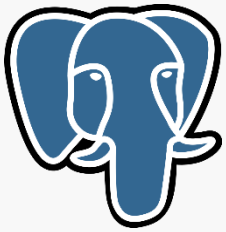
Google Summer of Code



PostgreSQL

2022 Program: GSoC is a light to success

Personal Information:

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Languages: English and Arabic.

Chosen Project Name: New and improved website for pgjdbc (JDBC) (2022).

Potential Mentor: Dave Cramer.

Who Am I?

A third-year computer engineering student at An-Najah National University, a persistent person who doesn't give up in this life, and I am made stronger by the hardships in my life. I'm too determinant in my appointments and I can work under pressure with high energy most of the time since I am constantly looking at what are the great outcomes lying beyond life challenges, which keeps me motivated. With this opportunity, I would like to take my first step into the world of open-source programming, which is currently gaining traction, enhance my programming skills, and establish new relationships with other students who work for the same organization that I have chosen to apply for. Since most of the announced organizations provide services that people use on a daily basis, contributing to their projects and being a part of this fabulous world of open source programming is an opportunity that does not come along every day!

For more details about me, you could kindly visit my GitHub portfolio: https://github.com/Israa-Odeh

As a computer engineering student, I have a wide range of skills encompassing both hard and soft skills. I have a lot of skills but have not yet achieved a sufficient level; in this field of study, you will never stop fixedly at a specific stair; you will always be climbing.

Soft Skills:

- Teamwork: Generally, I enjoy working alone, however, I have participated in many teamwork projects at my university and I am aware and appreciative of the value of joining forces and working in partnership with others.
- The ability to communicate clearly: I have verbal, written, and visual communication skills as I can speak clearly and concisely, and has the capacity to project positive body language and facial expressions, skillfulness in composing text messages, reports, and other types of documents.
- Leadership: I can supervise and direct my colleagues at the university.
- Effective time management.
- Active listening.
- Problem-solving.

Hard Skills:

Due to my background in computer engineering, I have extensive knowledge of different programming languages and enjoy problem-solving and programming. Among my technical skills are the following:

- Familiar with HDLs (Hardware Description Languages) such as Verilog and VHDL.

- Familiar with low-level languages such as Assembly, MIPS, and SPIM.
- Basics of DIP (Digital Image Processing) techniques.
- Familiar with basic concepts of networks. (client-server programming based on sockets, P2P programming).
- Software Development.
- Relational Databases.
- Mathematical Skills.
- Web Development.
- User Testing.
- Linux Basic Skills

Why have I chosen this project to work on?

After reviewing over 50 different organizations and their various proposed projects, I have found that the PostgreSQL organization project for creating a new and improved website for pgjdbc was the most suitable project which fits my current knowledge and skills which surely will be enhanced after collaborating on this project. With my knowledge and skills in web development, I can handle these types of projects, especially since I am always interested in learning about new platforms that simplify the web design and development process. I have developed previous websites using HTML, CSS, PHP, and JavaScript, and I'm interested in learning more about supporting plugins and libraries to expand my skills. Additionally, I've always been inclined to contribute to organizations I benefit from, see how they work, and dive into the details rather than simply consuming their services without contributing to the field in a useful way. Given I will be committing to a summer semester soon, I have chosen medium size project to be fair to myself and have the ability to participate in the GSOC program actively and balance this opportunity with my university studies.

Additionally, I have gone through the uploaded project files on GitHub and opened them one by one which gave me a clear idea about the previous implementation of the code, so I’m capable to build based on it, or even completely change it according to specific standards. I also chose a project that requires front-end design more than anything else, as I possess the skills required and know the details of colors, and coordination.

Proposed Deliverables during GSOC:

Since it is a mutual benefit program, I'm going to get benefited by learning new techniques, platforms, and new skills which I haven't used before, and part of the commitment to the organization is to provide them with all the expected outcomes and deliverables as following:

- Completely new and improved awesome website for the pgjdbc project.

- Redesigning the entire site, including changing the colors and merging new appropriate ones, changing locations of bars and lists, and improving the general shape to be more user-friendly.
- Reformatting the text since it's not user-friendly to display texts in this way, they are congested texts not encouraging the reader to read, also they aren't readable.
- No need for the search button at the top of the page, it should be omitted.
- The website should include motion and creativity which are missed in the current implementation that includes only a bunch of texts everywhere, so more attractive interactive interfaces will be designed to grab the attention of the website user.

An approximate timeline:

During the development stage, I will follow an agile approach and specify user stories for each period on a Trello board created specifically for the GSoC project.

May 20 - June 12:

My goal for this period is to get to know my mentors, read documentation accurately, contact my mentors to inform them about the possible suggestions for the upcoming days and if there are any changes, and inform them about my study commitments at university since I'm taking a summer course this year. Specifically, informing how many hours I can work per day, which days I won't work (if any), and on which days I have exams, as well as all the related concerns that must be strictly outlined. I would mention that I prefer to start working on the project from this period if my mentor permits that.

June 13 – June 24:

Start implementing the home page of the website by completely redesigning it in an incredible way, adapting more attractive colors suitable to the general construction of the website, adding a special touch to the logo in order to make the elephant tusks glow incrementally in an appealing way, reduction of white areas on the page, since it is not user-friendly to let so much white space while other areas are congested, reformatting the texts using different fonts, changes to the glowing levels when needed, moving the locations of objects and sections to make them fit in a better way, as their current arrangement isn't efficient, and all other design-related issues which will also be taken under consideration. In short, the home page will look completely customized and more professionally designed.

The last day of this period will be allocated to perform user testing (Website Usability Testing) on the website, to study how much the newly designed home page grasps users' attention, is its sections user-friendly, how much users are satisfied with this design, is it easy to reach what they are searching for in this website without being misled, and any suggested updates or changes from users' perspectives. Obtained results will be analyzed in order to benefit from them, and these results could be presented to the mentor in order to keep him updated on the progress. I

will push all the codes to a GitHub repository dedicated to this project before submitting the final version in the upcoming stages. Further, the project details will be strictly documented on GitHub.

June 25:

By this date, I will submit my codes, the analysis of user testing results, and all other related topics to my mentor to gain his valuable opinion and keep him involved in the development process, so that if he has any comments, suggestions, or updates, I can incorporate them into the project before moving to the next stage.

June 26 – June 30:

Updates suggested by the mentor in the previous evaluation will be applied to the project during this time and the updated details will be shown back to the mentor before the evaluation process ends. Meanwhile, I will move forward with implementing this website, where I will redesign the "About" page.

July 1 – July 2:

Perform user testing (Website Usability Testing) on the “About” page, document the results and analyze them to show them to the mentor, and get his feedback to involve any needed updates during this period.

July 3 – July 9:

- Redesign the "Download" page.

July 10 – July 12:

- Perform user testing (Website Usability Testing) on the “Download” page.
- Submit my codes, the analysis of user testing results, and all other related topics to my mentor.
- Incorporate comments, suggestions, or updates from the mentor (if any) into the project before moving to the next stage.

July 13 – July 20:

- Redesign the "Documentation" page.

July 21 – July 22:

- Perform user testing (Website Usability Testing) on the “Documentation” page.

- Submit my codes, the analysis of user testing results, and all other related topics to my mentor.
- Incorporate comments, suggestions, or updates from the mentor (if any) into the project before moving to the next stage.

July 26 – July 28:

- Redesign the " Community" page.
- Perform user testing (Website Usability Testing) on the “Community” page.
- Submit my codes, the analysis of user testing results, and all other related topics to my mentor.
- Incorporate comments, suggestions, or updates from the mentor (if any) into the project before moving to the next stage.

July 29:

Evaluation of the previously completed stages. “According to the timeline of GSoC”

July 30 – August 5:

- Redesign the "Development" page.
- Perform user testing (Website Usability Testing) on the “Development” page.
- Submit my codes, the analysis of user testing results, and all other related topics to my mentor.
- Incorporate comments, suggestions, or updates from the mentor (if any) into the project before moving to the next stage.

August 6 – September 9:

- As the redesigning process is finished, in this period, any additional features will be added to the website such as making it responsive, adding search bars to make it easier for users to access specific sections, and other features that I will be adding while working on this project since innovation and creation occur while working on the project more than any other times.

September 5 - September 12:

Submit my final work product and my final mentor evaluation (standard coding period).

An example of the first website I've created while taking a web development course at my university:

Please kindly follow this link, to watch a demo of my first web project:
https://www.youtube.com/watch?v=0fRDpI2qgF8&ab_channel=IsraaOdeh

At last but not least, I should mention that I have not provided illustrations (Images) of the expected design results of this chosen project, as the development and design processes are highly dependent on my thinking and imagination during the implementation stage, the previously provided demo, for example, is an example of a project that I have created without complete planning for the final design since the best colors to choose, the best location for sections and objects, and other details become clearer as you are envisioning and imagining.