END SEM EXAMINATION

(1) This question is all about **contribution in open source** software: link to software on github

REPORT

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Introduction

This software is all about measuring internet speed and hence named as Librespeed. It measures downloading speed, uploading speed.
It measures pings(Ping is a measure of the reaction time of your connection that is how quickly you receive a response when a request is made) and jitter(The jitter is found by finding the average of the time difference between each packet sequence) as well.
This is a simple Speedtest implemented in Javascript, using XMLHttpRequest and Web Workers.
All modern browsers are supported: IE11, latest Edge, latest Chrome, latest Firefox, latest Safari.
Works with mobile versions too.

Features

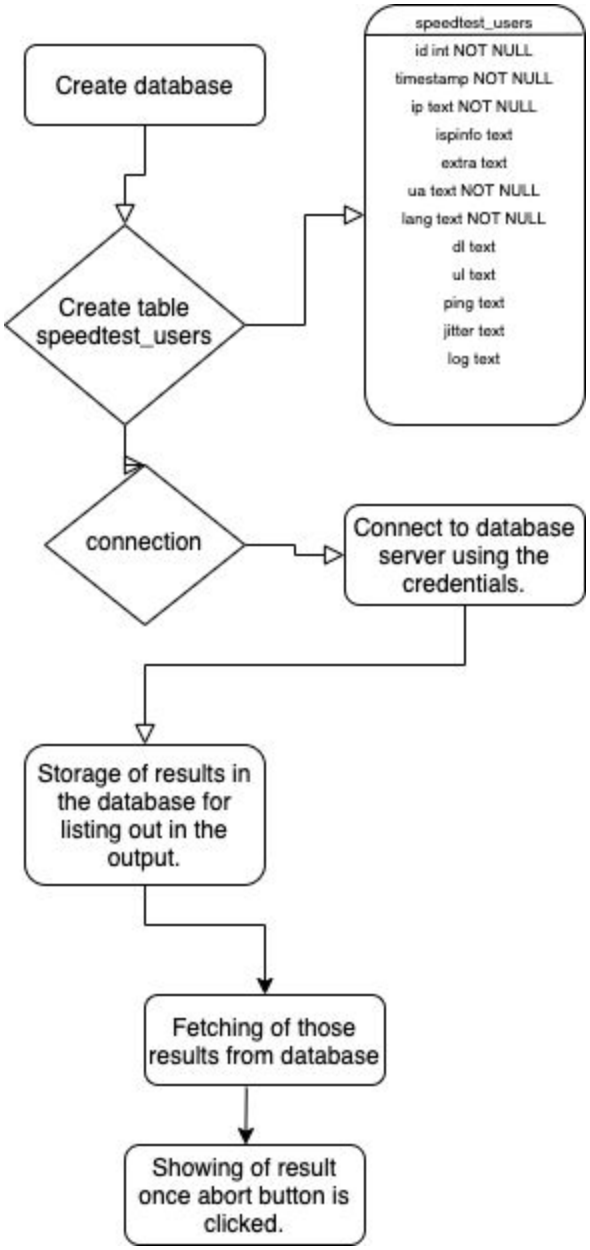
- Download speed measuring
- Upload speed measuring
- Ping
- Jitter
- IP Address, ISP, distance from server measuring
- Result sharing of whatever it measured
- Multiple points of test

Server Requirements:

- A reasonably fast web server with Apache 2 (nginx, IIS also supported)
- PHP 5.4 (other backends also available)
- MySQL database to store test results (optional, PostgreSQL and SQLite also supported)

My contribution to this open source software project:

I tried contributing in the document section. I read about that software and ran it and while reading I felt that there should be a flowchart for the database section which would ease the understanding of the database part. For that I made a flow chart using diagram.net. I researched the contribution method too. They have made a special folder named as ISSUE_TEMPLATE where we are supposed to add the complete description of the contribution we want to make.
In that folder, there is a file called feature_request.md where I have given the complete description and added the screenshot too. Then I created a pull request.
Below the image is attached:



Another pull request I created for the renaming of some features mentioned in the readme file.
In its readme file, in the feature section it's mentioned that it's feature is download, upload etc which is a bit confusing. I have mentioned my contribution for this bug in ISSUE_TEMPLATE/bug_report.md and

created a pull request for changing its name to measure download, upload speed.

(2) **Tools and frameworks:**

Sr. No.	Course Name	Software Name and details	Installed on laptop (yes/no)
1.	Web Development	Bracket, and it is used for web development and created using HTML, CSS and javascript and available the os like windows, mac and linux. Link to download bracket	yes
2.	Computer Architecture	Eclipse and it is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming languages via plug-ins. Link to download eclipse	yes
3.	Data Management and Information system	Eclipse photon and the Photon release is designed to expand on polyglot capabilities based on the Language Server Protocol plugins. Link to download eclipse photon	yes

4.	Computer Architecture	Keil MDK-Arm software and Keil MDK is the complete software development environment for a wide range of Arm Cortex-M based microcontroller devices. MDK includes the µVision IDE and debugger, Arm C/C++ compiler, and essential middleware components. Link to download keil	No because in mac it was not getting installed And since I worked on group project so on google meet I worked with my other group mates.
5.	Data Management and Information system	Postgresql and it is a powerful, open source object-relational database system that uses and extends the SQL language combined with many features that safely store and scale the most complicated data workloads. Link to download postgresql package	yes
6.	Data Management and Information system	Pgadmin and it is a management tool for PostgreSQL and derivative	yes

		relational databases such as EnterpriseDB's EDB Advanced Server. It may be run either as a web or desktop application. Link to download pgadmin	
7.	Data Management and Information system	J2EE and it is a platform-independent, Java-centric environment from Sun for developing, building and deploying Web-based enterprise applications online.	yes
8.	Software Engineering	Django and it is a Python-based free and open-source web framework that follows the model-template-views architectural pattern. Django can be installed by using the following commands: Step 1: `pip install Django==3.1.4` Step 2: `git clone https://github.com/django/django.git`	yes

9.	All courses	Google meet and it is a video-communication service developed by Google. It is one of two apps that constitute the replacement for Google Hangouts, the other being Google Chat.	Yes
10.	All courses	Google docs and it is a word processor included as part of a free, web-based Google Docs suite offered by Google within its Google Drive service.	yes
11.	All courses	Google sheets, and is a spreadsheet program included as part of the free, web-based Google Docs office suite offered by Google within its Google Drive service.	yes
12.	Philosophy, software engineering, research and development	Google slides and it is a presentation program included as part of a free, web-based Google Docs office suite offered by Google since 2006 within its Google Drive service.	yes

13.	Data Management and Information system	Apache Tomcat and it is an open-source implementation of the Java Servlet, JavaServer Pages, Java Expression Language and WebSocket technologies. https://tomcat.apache.org/download-80.cgi	yes
14.	Software Engineering	Github and, is a subsidiary of Microsoft which provides hosting for software development and version control using Git. https://github.com/	yes
15.	Research and Development	GDB and it is a portable debugger that runs on many Unix-like systems and works for many programming languages, including Ada, C, C++, etc. Command for installing gdb in a system: `$ sudo apt-get install libc6-dbg gdb valgrind`	yes