**SANT ATULANAND RESIDENTIAL ACADEMY**

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**A project report on**

“ Grape Web-Browser & Search engine“

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Certificate

this is to certify that Akshat Kumar Singh of **class**: 11th M-3 has prepared this report on the project entitled**“ Grape Web-Browser & Search engine“** . this report is the result of his efforts and endeavors. The report is found worthy of acceptance as the final report for the subject Computer Sciences of class 11th M3. He has prepared the report under my guidance.

**( Mr. Satyajeet Shukla)**

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Acknowledgement

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encouraging me during this project. I would like to thank my

friends for helping me in many aspects. Finally, I would like to

thank CBSE for giving me this opportunity to undertake this

project.

About python

**Introduction**

It is widely used general purpose,high level programming language. Developed by Guido van Rossum in 1991.

**It is used for:**

software development, web development (server-side), system scripting, Mathematics.

**Features of Python**

1. **Easy to use** : Due to simple syntax rule

2. **Interpreted language** : Code execution & interpretation line by line.

3**. Cross-platform language** : It can run on windows,Linux,mackintosh etc. equally

4. **Expressive language** : Less code to be written as it itself express the purpose of the code.

5. **Completeness** : Support wide range of library.

6. **Free & Open Source** : Can be downloaded freely and source code can be modify for improvement.

**Shortcomings of Python**

1. **Lesser libraries** : as compared to other programming languages like c++,java,.net
2. **Slow language** : as it is interpreted languages,it executes the program slowly.

3. **Weak on Type-binding** : It not pin point on use of a single variable for different data type.

ABOUT JSON

**Introduction**

**J**ava**S**cript **O**bject **N**otation (JSON) is a standard text-based format for representing structured data based on JavaScript object syntax. It is commonly used for transmitting data in web applications

**Why Use JSON?**

The JSON format is syntactically similar to the code for creating JavaScript objects. Because of this, a JavaScript program can easily convert JSON data into JavaScript objects.

Since the format is text only, JSON data can easily be sent between computers and used by any programming language.

WEB-BROWSER : { Grape }

*Back-end processes involved:*

1. Adding GUI
2. Loading the search engine
3. Allowing the user to enter any query/site address
4. Navigating to the site
5. Support downloading files
6. Storing cookies, history & site data for feasibility purposes
7. Animations /navigation buttons & splash screen
8. Allowing API’s
9. Able to perform Security checks
10. Google integration

Through the above modules, the client would be able to navigate to their respective website without any problem. Cookies and site data would be stored in JSON files which will speed up the loading time…

SEARCH ENGINE : { grape search }

*Back-end processes involved:*

1. Accepting input from the user
2. Crawling web for related information
3. Indexing them with relativity index
4. Displaying them with their site info
5. Loading animation / Dark mode

Through the above modules, the client would be able to surf the web and search for any information on the go!

*UPON creating both the applications i.e, Web-browser and Search engine we will link them with default navbar address set to our site’s web address*

Requirements

**Hardware requirements**

* Processor : Pentium quad core (i3 or newer gen recommended)
* Ram : 1 GB (2 GB recommended)
* Hard disk : 20 GB

**Software requirements**

* Operating system : windows 7+ / Linux / Mac sierra+
* Python 3 : for execution of program
* Internet connection: for 1st time boot-up and prerequisites installation

Project Grape search-engine up and running @ grapesearch.netlify.app

Bibliography

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Thank You!!