NATIONAL PUBLIC SCHOOL HSR LAYOUT

ChessExcel

2023-24

Made By:

Mervyn Simon Panicker (11B)

Vansh Aggarwal (11B)

Aarush Reddy (11B)

Index:

INDEX

|  |  |  |
| --- | --- | --- |
| S.No | Content | Page no |
| 1 | *Index* |  |
| 2 | *Certificate* |  |
| 3 | *Acknowledgement* |  |
| 4 | *Overview of Python* |  |
| 5 | *Project Synopsis* |  |
| 6 | *System Requirements* |  |
| 7 | *Modules and functions* |  |
| 8 | *Program Code* |  |
| 9 | *Program Output* |  |
| 10 | *Limitations* |  |
| 11 | *Bibliography* |  |

Certificate

ACKNOWLEDGEMENT:

The successful development of this Python chess game would not have been possible without the invaluable support and guidance of several individuals and institutions.

**Firstly, we would like to express our sincere gratitude to our school, National Public School HSR Layout.** The stimulating academic environment and resources provided by the school greatly contributed to our ability to undertake this project. We are especially thankful to the principal, Ms. Shefali Tyagi, for her continuous encouragement and support throughout our learning journey.

**Our deepest appreciation goes to our dedicated teacher, Ms. Nimi Kumar.** Her insightful guidance, insightful feedback, and unwavering belief in our capabilities were instrumental in helping us navigate the challenges of this project and achieve its completion. Her expertise and passion for programming have fostered our interest in the field and equipped us with valuable skills.

**We are also grateful to our friends and fellow classmates for their camaraderie and support.** Their helpful discussions, brainstorming sessions, and willingness to offer assistance whenever needed proved invaluable. The collaborative learning environment and friendly competition made the process enjoyable and motivated us to strive for excellence.

**Finally, we would like to acknowledge the countless online resources and tutorials that provided valuable knowledge and insights throughout the development process.** The open-source community and the wealth of information available online played a significant role in helping us overcome challenges and implement various functionalities in this game.

We are truly grateful for the contributions of all these individuals and institutions, and we dedicate this project to them in recognition of their unwavering support.

Vansh Aggarwal, Mervyn Simon & Aarush Reddy

An Overview of Python

Python is a high-level, general-purpose programming language known for its emphasis on code readability and its use of significant indentation. It was created by Guido van Rossum and first released in 1991. Python's open-source community is vast, diverse, and continuously growing. The language has a wide range of libraries and frameworks, making it versatile and popular due to its straightforwardness and uncomplicated syntax.

**History:**

Python was conceived in the late 1980s, and its implementation was started in December 1989 by Guido van Rossum at CWI in the Netherlands. The development of the language commenced in December 1989, and the first public release, version 0.9.0, was made available in February 1991. Python 1.0 was introduced in 1994, incorporating new functionalities such as lambda, map, filter, and reduce.

**Features:**

Python is a versatile programming language known for its simplicity, readability, and wide range of applications. Its usability is attributed to its simple syntax, support for multiple programming paradigms, and extensive libraries and frameworks, making it accessible to engineers with various backgrounds. Python's functions, including user-defined functions, enable the division of programs into modules, making the code easier to manage, debug, and scale, and promoting code reuse.

The language's straightforwardness and uncomplicated syntax have contributed to its popularity, as it allows for easy onboarding of engineers with existing expertise in different programming paradigms. Python's usability extends to various applications, including web programming, data analysis, game development, and the creation of system utilities.

In summary, Python's usability is derived from its simple and versatile nature, making it suitable for a wide range of applications and accessible to engineers with diverse backgrounds. Its support for code reuse and program organization further enhances its usability in various development scenarios.

**Open Source Community:**

Python's open-source community is known for its vastness, diversity, and continuous growth. It provides extensive support through various channels such as newsletters, Slack teams, Discord, and LinkedIn groups. The community offers curated news, articles, new releases, jobs, and more. Engaging in open-source projects is seen as an optimal way for individuals to contribute to and learn from the community.

In summary, Python is a versatile programming language with a rich history, a strong emphasis on community, and a wide range of features and capabilities that have contributed to its widespread adoption and continued growth.

PROJECT SYNOPSIS

[1] https://www.python.org/community/

[2] https://en.wikipedia.org/wiki/Python\_(programming\_language)

[3] https://www.linkedin.com/pulse/python-history-versions-crawsec-agjtf

[4] https://en.wikipedia.org/wiki/History\_of\_Python

[5] <https://github.blog/2023-03-02-why-python-keeps-growing-explained/>

[1] https://danl21.github.io/docs/2\_CoreNotebooks/GoodPractise2\_Usability.html

[2] https://data-flair.training/blogs/python-function/

[3] https://www.linkedin.com/pulse/python-history-versions-crawsec-agjtf

[4] https://techcommunity.microsoft.com/t5/azure-compute-blog/azure-functions-using-python-2023-in-review/ba-p/4007999

[5] https://qubit-labs.com/what-can-you-do-with-python/