## APPENDIX 1

**MORSE CODE CONVERTER**

**END TERM REPORT**

***by***

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## APPENDIX 2

**Student Declaration**

This is to declare that this report has been written by me/us. No part of the report is copied from other sources. All information included from other sources have been duly acknowledged. I/We aver that if any part of the report is found to be copied, I/we are shall take full responsibility for it.

Name:Arnab Ray

Roll Number:69

Name:Aryan Bagla

Roll Number:66

Name:Kartik Sharma

Roll Number:19

Date: 30/10/2020

APPENDIX 4

BONAFIDE CERTIFICATE

Certified that this project report “**Morse Code Converter”** is Bonafide work of “**Arnab Ray, Aryan Baghla and Kartik Sharma**” who carried out the project work under my supervision.

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**INTRODUCTION**

Morse code is a method used in telecommunication to encode text characters as standardized sequences of two different signal durations, called dots and dashes or dots and dahs. Morse code is named after Samuel Morse, an inventor of the telegraph. The International Morse Code encodes the 26 English letters A through Z, some non-English letters, the Arabic numerals and a small set of punctuation and procedural signals (prosigns). There is no distinction between upper- and lower-case letters. Each Morse code symbol is formed by a sequence of dots and dashes. The dot duration is the basic unit of time measurement in Morse code transmission. The duration of a dash is three times the duration of a dot. Each dot or dash within a character is followed by period of signal absence, called a space, equal to the dot duration. The letters of a word are separated by a space of duration equal to three dots, and the words are separated by a space equal to seven dots. Morse code is a character encoding and decoding scheme. Morse Code, either of two systems for representing letters of the alphabet, numerals, and punctuation marks by an arrangement of dots, dashes, and spaces. The codes are transmitted as electrical pulses of varied lengths or analogous mechanical or visual signals, such as flashing lights. One of the systems was invented in the United States by American artist and inventor Samuel F.B. Morse during the 1830s for electrical telegraphy. This version was further improved by American scientist and businessman Alfred Lewis Vail, Morse’s assistant and partner. Soon after its introduction in Europe, it became apparent that the original Morse Code was inadequate for the transmission of much non-English text, since it lacked codes for letters with diacritic marks. To remedy this deficiency, a variant called the International Morse Code was devised by a conference of European nations in 1851. This newer code is also called Continental Morse Code.

**Description of Project:**

In this project we have built a GUI based Morse Code converter. We have used the concept of File Handling for storing the result. We have used the Tkinter for the GUI and Random function for generating Random Names for the files stored. The main objective of the project was to make the students aware of the real-life projects. In this project we had to implement the stuffs taught to us by our teacher in the class. In this project we had to build a Morse Code Converter which can convert both the encoding and the decoding

**Description of Work Division in terms of Roles among Students:**

The work was divided among us is this way:

Aryan Baghla did the logical thinking behind developing the Morse Code Converter and also gathered information and working principal of the Morse Code.

Arnab Ray did the actual programming and development of the GUI based Morse Code Converter and uploaded it on his GitHub account.

Kartik Sharma helped in logical thinking for building the algorithm for the Morse Code and also made the Project Report.

**Technologies and Framework to be used:**

The python libraries used for this project is Random for generating random names for the saved files ,Tkinter for making the GUI and we have also used the concept of file handling and functions in this project.

**SWOT Analysis achieved in project**

i) Strength: Simple code and easy to understand. Knowing the language beforehand was very helpful in making of the project.

ii) Weakness: We found it difficult to make different functions using python programming language in the project.

iii) Opportunities: For doing our project, we got the perfect opportunity to get to know more in depth about python and gain the experience of making a project in one of the most famous programming language.

iv) Threats: Our code is a simple one so that is a threat too because it can be easily understood and copied.