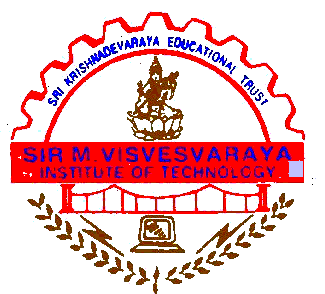
**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY** Hunasamaranahalli, Bangalore -562157

(Affiliated to Visvesvaraya Technological University, Belgaum)

AN ISO 9001:2008 Certified Institution

**DEPARTMENT OF COMPUTER APPLICATIONS**

****

**Seminar Report on**

**MORSE\_CODE\_TRANSLATOR**

BY

**GADHAM SETTY VENKATESH**

**USN : 1MV22MC012**

**Under the Guidance of**

**Prof. Mr. B MUTHURAMALINGAM**

**Assistant Professor**

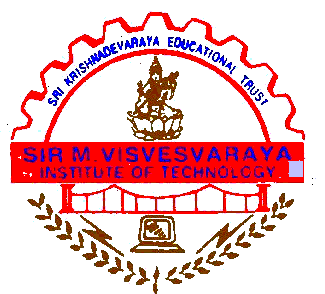
**2022-23 Even Semester**

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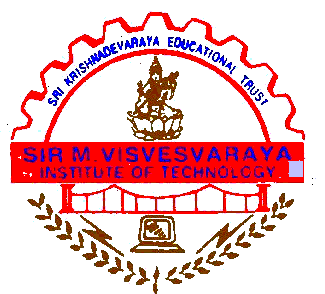
****

**SEMINAR CERTIFICATE**

This is to certify that **Mr. GADHAM SETTY VENKATESH** of 2nd semester bearing USN: 1MV22MCO12 has satisfactorily completed the Seminar (22MCA29) prescribed by Visvesvaraya Technological University M.C.A course in the year 2022 -2023.

Faculty Incharge

1. RAGHAVENDRA RAO B G
2. SNEHA BHARTI Dept. of MCA, Sir
3. Mr. B MUTHURAMALINGAM

****

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**SEMINAR DETAILS**

|  |
| --- |
| **USN : GADHAM SETTY VENKATESH** |
| **Student Name : 1M22MC012** |
| **Semester : 2ND** |

**SEMINAR TOPIC**

|  |
| --- |
| **MORSE\_CODE\_TRANSLATOR** |

|  |  |  |
| --- | --- | --- |
| **Examiners** | **Name** | **Signature with date** |
| 1 | Dr. Ch. Vanipriya |  |
| 2 | Prof. B Muthuramalingam |  |
| 3 | Raghavendra Rao BG |  |

HOD

Dept. of MCA, Sir MVIT

**ACKNOWLEDGEMENT**

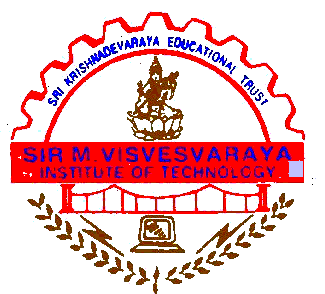
Presentation, Inspiration and motivation have been always played a key role in the success of any venture

I express my sincere thanks to the principle Dr. RAKESH S.G. and HOD of the computer department Smt Dr.C.H VANIPRIYA of our college of encouraging us to the highest peak and for providing us the opportunity to prepare project.

We immensely obliged to my guide Mr.B.MUTHRAMALINGAM for the completion, encouragement, guidance and kind supervision in the completion of my project.

Finally this project is the combined effort of all the group members and we are happy to work together, without team efforts this project could not have completed successfully.

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
 BANGALORE**



**DEPARTMENT OF COMPUTER APPLICATIONS**

**Seminar Report**

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**ABSTRACTION**

Morse code is represented by the form of dits and dahs. Here dits refer to dots and dahs refer to dash. Morse code used to transmit only numerals at first. After that, Alfred Vail included letters and characters. Morse code can be transmitted by using electric telegraph wire, light, and sound, through a different medium in different ways. Tap code is used by American prisoners. Morse code is used for long-distance communication. International Morse code was devised by European nations in 1851. It is the base for the morse code to transmit or receive. Morse code is a character encoding and decoding scheme

**INTRODUCTION :**

Morse code was developed by Samuel Morse in around 1837. It is a method of sending text messages directly by a technique and that also over a long distances when the technology of the time i.e. electrical telegraphs were only really allowed for the people to send “pulses”.

A Morse Code Translator is a translator that is used to convert normal text messages to Morse code and decode the Morse code to text. By taking the help from online translators which are available and provide both the options, one can easily convert the sentences, texts, distress messages, etc. to Morse Code and vice versa. Just type Morse code translator in your search engine, and you will get the suggested results to ready to go. Morse code can also have the encoded sound played for you. There are various applications on Morse Code available too.

1. Let us say the input text that needs to be converted into Morse Code is: Text for ecoding: Help! I am stuck on an island surrounded by sharks. Morse code: …. . .-.. .–. -.-.– / .. / .- — / … – ..- -.-. -.- / — -. / .- -. / .. … .-.. .- -. -.. / … ..- .-. .-. — ..- -. -.. . -.. / -… -.– / … …. .- .-. -.- … .-.-.-

2. Let us say you want to decode a Morse Code to normal text. Morse code: -.. .- -. –. . .-. .-.-.- / -.-. .- ..- … . / …. ..- .-. .-. .. -.-. .- -. . .-.-.- Decoded message

**LITERATURE REVIEW**

The International Morse Code has, except for some minor changes in 1938, remained the same since its inception. (The American telegraph industry never abandoned the original Morse Code, and so its use continued until the spread of tele printer in the 1920s and ’30s.) International Morse Code was used in World War II and in the Korean and Vietnam wars. It was used heavily by the shipping industry and for the safety of the seas up until the early 1990s. Although amateur radio made up only a small part of Morse Code usage, it did prepare many hundreds of operators for military duty in communications. In the early 2000s most countries had dropped the ability to decipher Morse Code from the requirements for obtaining an amateur radio license In Morse code, there is no differentiation between upper case and lower case letters.The early telegrapher, often one who was at a railway road station interconnected with others along miles of telegraph pole lines, would tap a key up and down. to send a succession of characters that the receiving telegrapher could read from tape and then later on the operators learned to read the transmissions simply by listening which made it more easier.

**METHODOLOGY**

Define the project's objectives and scope. Determine the target audience and their needs. Collect requirements for the Morse code translator, including input/output formats, user interface preferences, and any additional features or functionalities.Build the user interface based on the design plan. Ensure it is user-friendly, intuitive, and accessible across various devices and platforms (e.g., web, mobile, desktop). Implement features such as input fields, translation buttons, and result displays.Familiarize yourself with Morse code, its history, and its rules. Understand how Morse code represents letters, numbers, and special characters using dots and dashes. Study existing Morse code translation algorithms and tools.

**SYSTEM DESIGN**

**User Interface (UI):**

* Create a clean and intuitive user interface that includes text input and output fields.
* Add a button for users to trigger the translation process.
* Include labels or placeholders to guide users on how to use the translator**.**

**Morse Code Translation Logic:**

* Implement Morse code translation logic in JavaScript to convert user input (text) into Morse code using a predefined dictionary, as mentioned in the previous response.
* Ensure the translation logic is modular and can be easily maintained and expanded.

**Event Handling**

* Set up event listeners in JavaScript to detect user input actions, such as clicking the translation button or entering text.
* Trigger the translation function when the user requests a translation.

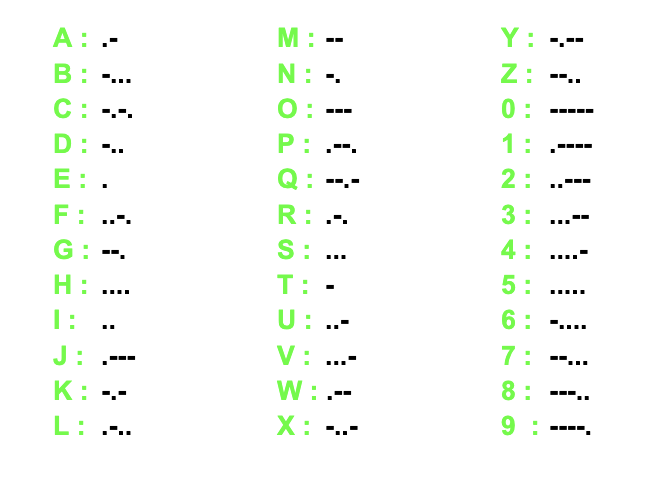
**Error Handling**:

* Implement error handling to deal with invalid input or unexpected behavior. For instance, inform users if they enter characters not supported by the Morse code dictionary.

**Testing:**

* Thoroughly test the web page to ensure that it works as expected on different web browsers and devices.
* Test the translation logic with various input scenarios to validate its accuracy.

**IMPLEMENTATION :**

. 

**SOURCE CODE :**

<html>

<head>

<title>MORSE CODE</title>

<link rel="stylesheet" href="style.css"/>

<style>

h1{text-align: center;font-size: 25px;}

p{font-size: 20px;text-indent: 50px;}

a:link{

background-color: aqua;

text-decoration: none;

text-align: center;

}

body{background-color:aqua}

table {

font-size:20px;

font-family: arial, sans-serif;

border-collapse: collapse;

width: 100%;

}

td, th {

border: 1px solid #111010;

text-align: center;

padding: 8px;

}

</style>

</head>

<body>

<nav>

<div class="logo"></div>

<input type="checkbox" id="click">

<label for="click" class="menu-btn">

<i class="fas fa-bars"></i>

</label>

<ul>

<li><a href="MORSE\_CODE.html">HOME</a></li>

<li><a href="Translator.html">TRANSLATOR</a></li>

<li><a href="History.html">HISTORY</a></li>

<li><a href="about.html">ABOUT</a></li>

</ul>

</nav>

<br><br>

<br><br>

<h1>Character -> MORSE</h1>

<br>

<p>

The very important fact about morse is that it can be used not only in letters (or)text.Actually we can understand MORSE by the way it sound and flashes and etc.,a dot and dash is easily understandable to our ears, we men the way it sounds and ,we can also understand MORSE through our eyes by means of a dim light for dot and bright light for dash.

</p>

<table>

<tr>

<th>S.No</th>

<th>Character</th>

<th>Morse\_code</th>

</tr>

<tr>

<td>01</td>

<td>A</td>

<td><b>.-</b></td>

</tr>

<tr>

<td>02</td>

<td>B</td>

<td><b>-...</b></td>

</tr>

<tr>

<td>03</td>

<td>C</td>

<td><b>-.-.</b></td>

</tr>

<tr>

<td>04</td>

<td>D</td>

<td><b>-..</b></td>

</tr>

<tr>

<td>05</td>

<td>E</td>

<td><b>.</b></td>

</tr>

<tr>

<td>06</td>

<td>F</td>

<td><b>..-.</b></td>

</tr>

<tr>

<td>07</td>

<td>G</td>

<td><b>--.</b></td>

</tr>

<tr>

<td>08</td>

<td>H</td>

<td><b>....</b></td>

</tr>

<tr>

<td>09</td>

<td>I</td>

<td><b>..</b></td>

</tr>

<tr>

<td>10</td>

<td>J</td>

<td><b>.---</b></td>

</tr>

<tr>

<td>11</td>

<td>K</td>

<td><b>-.-</b></td>

</tr>

<tr>

<td>12</td>

<td>L</td>

<td><b>.-..</b></td>

</tr>

<tr>

<td>13</td>

<td>M</td>

<td><b>--</b></td>

</tr>

<tr>

<td>14</td>

<td>N</td>

<td><b>-.</b></td>

</tr>

<tr>

<td>15</td>

<td>O</td>

<td><b>---</b></td>

</tr>

<tr>

<td>16</td>

<td>P</td>

<td><b>.--.</b></td>

</tr>

<tr>

<td>17</td>

<td>Q</td>

<td><b>--.-</b></td>

</tr>

<tr>

<td>18</td>

<td>R</td>

<td><b>.-.</b></td>

</tr>

<tr>

<td>19</td>

<td>S</td>

<td><b>...</b></td>

</tr>

<tr>

<td>20</td>

<td>T</td>

<td><b>-</b></td>

</tr>

<tr>

<td>21</td>

<td>U</td>

<td><b>..-</b></td>

</tr>

<tr>

<td>22</td>

<td>V</td>

<td><b>...-</b></td>

</tr>

<tr>

<td>23</td>

<td>W</td>

<td><b>.--</b></td>

</tr>

<tr>

<td>24</td>

<td>X</td>

<td><b>-..-</b></td>

</tr>

<tr>

<td>25</td>

<td>Y</td>

<td><b>-.--</b></td>

</tr>

<tr>

<td>26</td>

<td>Z</td>

<td><b>--..</b></td>

</tr>

<tr>

<td>27</td>

<td>1</td>

<td><b>.----</b></td>

</tr>

<tr>

<td>28</td>

<td>2</td>

<td><b>..---</b></td>

</tr>

<tr>

<td>29</td>

<td>3</td>

<td><b>...--</b></td>

</tr>

<tr>

<td>30</td>

<td>4</td>

<td><b>....-</b></td>

</tr>

<tr>

<td>31</td>

<td>5</td>

<td><b>.....</b></td>

</tr>

<tr>

<td>32</td>

<td>6</td>

<td><b>-....</b></td>

</tr>

<tr>

<td>33</td>

<td>7</td>

<td><b>--...</b></td>

</tr>

<tr>

<td>34</td>

<td>8</td>

<td><b>---..</b></td>

</tr>

<tr>

<td>35</td>

<td>9</td>

<td><b>----.</b></td>

</tr>

<tr>

<td>36</td>

<td>10</td>

<td><b>-----</b></td>

</tr>

<tr>

<td>37</td>

<td>.(dot)</td>

<td><b>.-.-.-</b></td>

</tr>

<tr>

<td>38</td>

<td>,(comma)</td>

<td><b>--..--</b></td>

</tr>

<tr>

<td>39</td>

<td>?(question mark)</td>

<td><b>..--..</b></td>

</tr>

<tr>

<td>40</td>

<td>/(slash)</td>

<td><b>-..-.</b></td>

</tr>

<tr>

<td>41</td>

<td>@</td>

<td><b>...-.-</b></td>

</tr>

</table>

</body>

</html>

**CONCLUSION :**

In the original Morse code version, the separation of key down is done by (key up) from the next letter that was a dot (or, as it sounded as a telegrapher, a “dit”) and the key down quickly twice in succession was a dash(a “dah” or “dit-dit”). Representation of each characters is done by a dot, dash, or some combination to know about the sound system perfectly. There are various stories concerning about how the Morse code was originally developed. According to one account, The person who have developed the Morse code i.e., Samuel Morse went to a printer’s shop and counted the amount of printer type the printer had for each letter of the alphabet for his understanding and scripting it with Morse code. Samuel Morse then interpreted these counts as approximations of the relative frequency of each of the letters are in typical English text. He organized the Morse code so that the shortest symbols were associated with the most frequent characters as per their condition. Thus, for example, A and T, the most often-used letters in the English language, were represented by a single dot and single dash, respectively. The least frequently occurring letters, such as J and Y, and numerals and punctuation marks were given more complex and longer representations. And there were No differentiation was made for uppercase and lowercase. Morse code offers a slow but reliable means of transmitting and receiving wireless text messages through conditisons involving noise, fading, or interference. This is primarily because its simple binary code (key down or key up) allows for an extremely narrow bandwidth. Even the brain and ear of the human make a remarkable digital receiving devices. In Nowadays onwards, Morse code is used till a limited extent by military and amateur radio operators and landline telegraphers.

**REFERENCES :**

* Perera Tom, "The “Morse" in Code and the Continental Code, Wl Tp Telegraph & Scientific Instruments Museums.
* Continental and International Morse Codes, [online] Available: <http://jhbunnell.comlmorsecode.shtml>