EXPOSYS LAB INTERSHIP

DOMAIN – IOT

DONE BY ,
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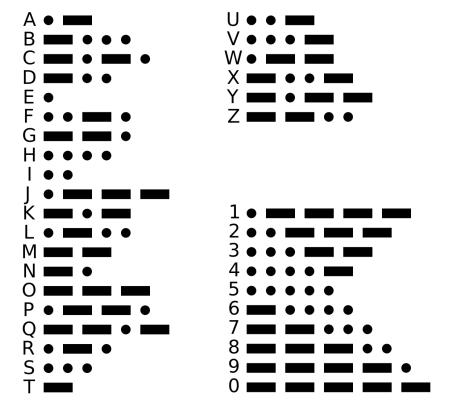R CHETANA NATH

Internet of things-(IOT)

- The **Internet of Things** (**IoT**) describes physical objects (or groups of such objects), that are embedded with sensors, processing ability, software, and other technologies, and that connect and exchange data with other devices and systems over the internet or other communications networks.

- **Why is Internet of Things (IoT) so important?**

- Over the past few years, IoT has become one of the most important technologies of the 21st century. Now that we can connect everyday objects—kitchen appliances, cars, thermostats, baby monitors—to the internet via embedded devices, seamless communication is possible between people, processes, and things.

- By means of low-cost computing, the cloud, big data, analytics, and mobile technologies, physical things can share and collect data with minimal human intervention. In this hyperconnected world, digital systems can record, monitor, and adjust each interaction between connected things. The physical world meets the digital world—and they cooperate.

MORSE CODE

- Morse code is a method used in telecommunication to encode text characters as standardized sequences of two different signal durations, called dots and dashes and dahs.

International Morse Code

1. The length of a dot is one unit.
2. A dash is three units.
3. The space between parts of the same letter is one unit.
4. The space between letters is three units.
5. The space between words is seven units.

PROJECT DESCRIPTION

- Morse code has been employed as an assistive technology, helping people with a variety of disabilities to communicate. Morse can be sent by persons with severe motion disabilities, as long as they have some minimal motor control.

- An original solution to the problem that caretakers have to learn to decode has been an electronic typewriter with the codes written on the keys. Morse code can also be translated by computer and used in a speaking communication aid.

- An important advantage of Morse code over row column scanning is that once learned, it does not require looking at a display. Also, it appears faster than scanning.

- **TASK:-** Encryption and Decryption between users in Morse using a Flashlight.

STEPS:-

- 1.Write a code to encrypt text to Morse.

- 2.Create a link between Morse and a flashlight and that should blink with respective to Morse.

- 3.Create another program to record the flash and that flash-toggling should be again reconverted into Morse and then decrypted into text.

ENCRYPTION OF MORSE CODE

```
Encryption and Decryption between users in Morse Code using a Flashlight.
1. Encryption of Morse_Code
2. Decryption of Morse_Code to text
3. Encryption of Morse, using flashlight and Decrypting again in text
Select Your Choice: 1
Enter Text to Convert to Morse: Good morning
--. --- --- -..   -- --- .-. -. .. -. --.
None
```

DECRYPTION OF MORSE CODE

```
Encryption and Decryption between users in Morse Code using a Flashlight.
1. Encryption of Morse_Code
2. Decryption of Morse_Code to text
3. Encryption of Morse, using flashlight and Decrypting again in text
Select Your Choice: 2
Enter Morse to Convert to Text: --. --- --- -..   -- --- .-. -. .. -. --.
GOODMORNING
None
```

ENCRYPTION OF MORSE CODE USING FLASHLIGHT AND DECRYPTING AGAIN IN TEXT

```
Encryption and Decryption between users in Morse Code using a Flashlight.
1. Encryption of Morse_Code
2. Decryption of Morse_Code to text
3. Encryption of Morse, using flashlight and Decrypting again in text
Select Your Choice: 3
Enter Text to Convert to Morse: how are you
INPUT TEXT :  how are you


-------------------------------------------------------------------------
Encrypting in morse code
Encryption Completed, Converted Morse Code: .... --- .--   .- ..- .   -.-- --- .
-------------------------------------------------------------------------
Blinking Flashlight with respective to Morse.
flash-toggling  reconversion into Morse




-------------------------------------------------------------------------
Reconverted Morse Code .... --- .--   .- ..- .   -.-- --- ..-
-------------------------------------------------------------------------
-------------------------------------------------------------------------
Decrypting  morse code
Decryption Completed, Converted TEXT: HOWAREYOU
-------------------------------------------------------------------------
Encryption and Decryption Completed
```

THANK YOU

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