ABL Report Overview

Group Members:

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Day 1: E-waste

A houseplant is a plant that is grown indoors in places such as residences and offices, namely for decorative purposes, but studies have also shown them to have positive psychological effects and as well as help with indoor air purification, since some species, and the soil-dwelling microbes associated with them, reduce indoor air pollution by absorbing volatile organic compounds including benzene, formaldehyde, and trichloroethylene. While generally toxic to humans, such pollutants are absorbed by the plant and its soil-dwelling microbes without harm.

As more and more people engage in keeping a house pants not often it is that they have proper knowledge about how to maintain one properly so that it grows to its finest.

While it's important to stay on top of watering your houseplants in order to help your plants stay in good shape, there is such a thing as giving them too much water or giving them too little water that you encounter wilting and brown spots popping up on plant leaves which is a sign of your plant on verge of dying

Here is where Artificial Plant Emotion eXpressor(APEX) will come into the picture

Symptoms like drying of the soil near the plant And stunt in growth lead to Underwatering of plants

Symptoms like yellowing of plant leaves and tips of leaves turning the brown lead of Overwatering of Plants.

Thus if people know when the plans need water and when it is too much these issues can be solved but various factors like sunlight, nutrition of soil depend on how much water is required. This can be found out by using a soil moisturizer sensor.

These complex statistics of this sensor cannot be interpreted by the common man. So we are creating an independent, portable device that will understand the complex computations of the sensor and give the results using emotes(emoji)

Methodology:

Once the device is inserted into the soil of the plant the water content of the soil will be stored in the Arduino using a soil moisturizer sensor

Since the common people cannot understand the complex statistics of the water content of soil these statistics will be relayed using an 8x8 led matrix using emotes(emoji)

If there is a happy emoji in the display there is no need for water in the plant currently however there is a sad emoji in the display it means that the plant requires water

Components Required

- ARDUINO Ui.NO REV3:
- Capacitive Touch Sensor:
- Moisture sensor :
- 9v battery to barrel jack connecter
- 22 gauge wire
- Electrical tape
- Wire strippers
- Soldering iron(generic)
- Desoldering pump
- 9v battery
- 8x8 LED Matrix

Day 2: Extension Work

Extension Work is the work that is carried out by the students outside the college premises for societal development.

It is an education which is stretched out into the villages and fields, for adults & children.

People are motivated through a proper approach to help themselves by applying scientific skills in their home, farm, and community living.

This also deals with the creation, transmission and application of knowledge to bring changes in the behavior of the people for community development.

Learning Outcome:

To identify the needs & problems of the Community and involve them in problem-solving by developing a sense of social responsibility.

To utilize their knowledge in finding practical solutions and develop the skill required.

To Involve the group participation

To understand the point of view of the other people.

To develop self-confidence

To develop the ability to observe and analyze situations.

Drive Link for Covid Awareness Video:

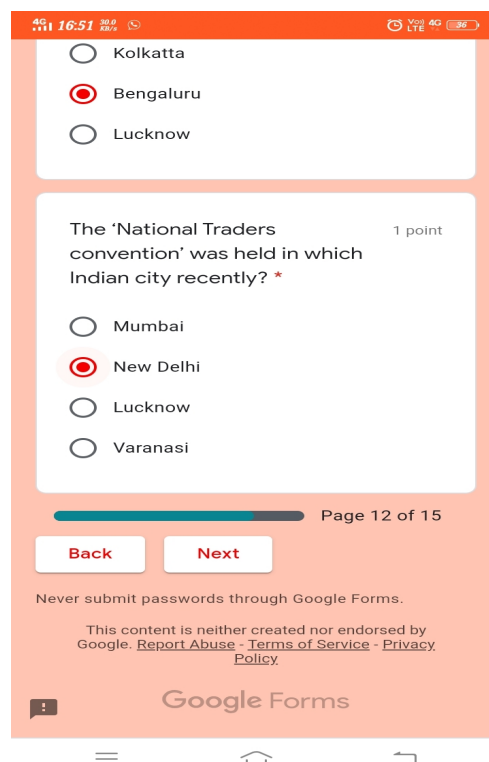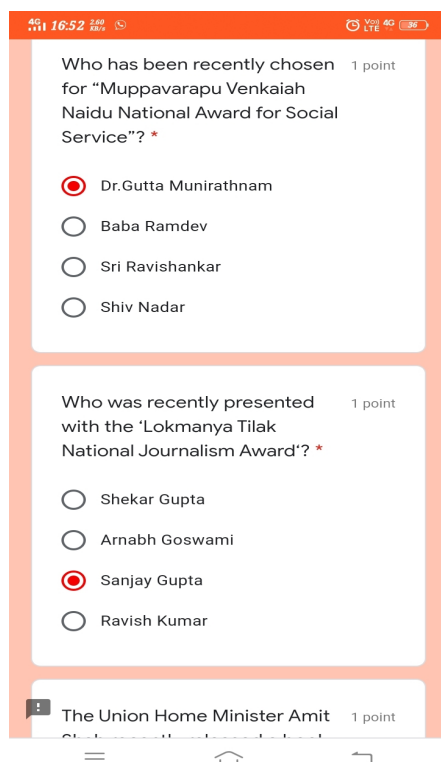https://drive.google.com/file/d/1o3xcE6cxHdGIE9rTyZ3At9ZbA-ezZLzm/view?usp=sharing

Day 3:Brain Storming and Quiz

Brainstorming combines a relaxed, informal approach to problem-solving with lateral thinking. It encourages people to come up with thoughts and ideas that can at first seem a bit crazy. Some of these ideas can be crafted into original, creative solutions to a problem, while others can spark even more ideas.

Topic: How to improve low Attendee

- Regular feedback on a survey on the performance of teachers so that any grievances can be solved
- More practical knowledge gives hands-on experience accompanied by sufficient theoretical knowledge
- Use of Interactive resources like videos and ppt to better engage the students

Quiz:

Day 4 - Tat and Wat

The **Thematic Apperception Test (TAT)** is a psychological assessment device used to measure an individual's personality, values, or attitudes. ... The test may be adapted for adults and children, males or females by using particular cards within the set.

The TAT is a widely used projective test for the assessment of children and adults. It is designed to reveal an individual's perception of interpersonal relationships.

The TAT is popularly known as the picture interpretation technique because it uses a standard series of provocative yet ambiguous pictures about which the subject is asked to tell a story. The subject is asked to tell as dramatic a story as they can for each picture presented, including:

- what has led up to the event shown
- what is happening at the moment
- what the characters are feeling and thinking
- what the outcome of the story was

If these elements are omitted, particularly for children or individuals of low cognitive abilities, the evaluator may ask the subject about them directly.

There are 31 picture cards in the standard form of the TAT. Some of the cards show male figures, some female, some both male and female figures, some of ambiguous gender, some adults, some children, and some show no human figures at all. One card is completely blank. Although the cards were originally designed to be matched to the subject in terms of age and gender, any card may be used with any subject. Most practitioners choose a set of approximately ten cards, either using cards that they feel are generally useful, or that they believe will encourage the subject's expression of emotional conflicts relevant to their specific history and situation.

The **Word Association Test (WAT)** was based on earlier theories of the associationism school of psychology, which studied the laws of mental

associations. Word Association Test is to ascertain the personality traits of a candidate.

Jung introduced significant innovations to this method. In addition to the cognitive dimensions, he emphasized the emotional aspects involved. He noted that the words to which subjects offered unusual responses were connected with themes having an emotional impact on them. He found that subjects invariably do not have conscious control over their responses. Therefore, he argued, this method was tapping both conscious and unconscious phenomena. He found that clusters of ideas, images, and words loaded with much affect (positive or negative) interfered with the ego (as the coordinating agency) by producing unusual responses. He called these clusters complexes. Jung used Freud's theories of repression to account for the autonomous nature of complexes. Freud praised Jung for providing experimental proof of the existence of the unconscious, welcoming him in the early psychoanalytic movement as a much needed hard-nosed scientist. Although the term complex was used by Freud and Josef Breuer earlier, it was with Jung's meaning that it finally entered the psychoanalytic vocabulary.

Example of WAT:

60 words will be shown one after other on Screen or will be written on white board. Each word will be shown for 15 seconds and a sentence is to written against each word with spontaneous reaction. The evaluation of the answer sheets will be based on 05 points parameters, which will be provided separately. Words are not to be disclosed to any candidate prior to commencement of Test.

Day 5-Gaming

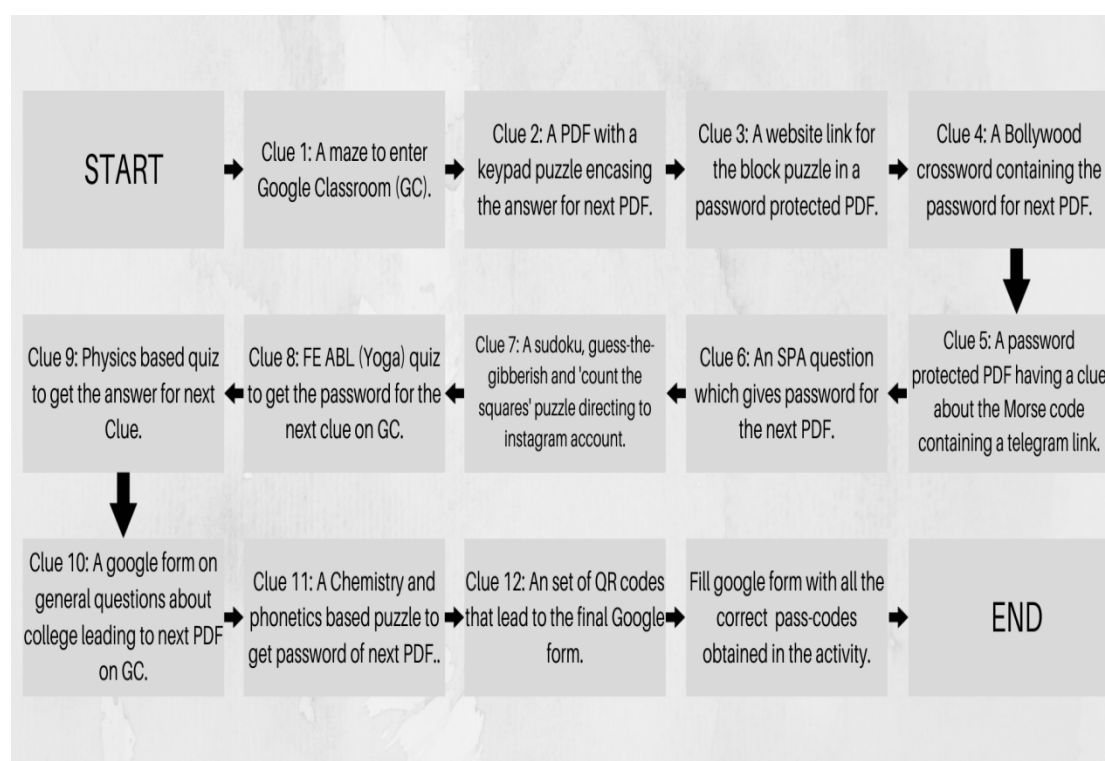The game can be individual or team basis.

The flow of the activity can be very creative to imbibe the knowledge which is to be provided. Point-based hunt, round-based hunt, dead-ends, use of online platforms, creating new clues with course material etc

The activity can be conducted over various online platforms or technologies. Focus on student's critical thinking, aptitude, logical reasoning, and coding skills with an exploratory mindset

Learning Outcome:

- Help to crack aptitude test, logical reasoning.
- Help to find a solution to a problem in a logical way

Example:

Activity Based Learning – IV

Summary | Assignment 6

Theme: Green IT

SE IT A – Group 7 Members

Chirag Jain – 31
Harsh Jain – 32
Himanshi Jain – 33
Karan Jain – 34
Megha Jain – 35

Overall Summary

ABL Theme: Green IT

Summary:

Day 1:

The Activity Based Learning – IV program is a part of the academic curriculum, introduced by Thakur College of Engineering & Technology for SE students. The theme of ABL-IV is Green Information Technology which is composed of two things: Minimizing the negative impact of IT use on the environment and using IT to help address various environmental issues on a global scale, using the core principles of Green Computing. TCET has taken an initiative to inculcate the practice of Agile Methodology in the Institute's system and culture. Agile Methodology emphasizes on implementing immediate changes according to the customer requirements. It is an iterative process which provides you a methodology to remove unnecessary work and cut down the waste, eliminating delays in the delivery of products, etc. TCET has taken steps to be at par with the International Standards, which resonates with its vision.

Learning Outcomes: Various videos of Agile Methodology process and implementation into an organization were shown during the Zoom Session. A task of writing a rough Research Paper was given to us, under the activity of Creative Writing. Any type of writing that is very formal, precise and reliant upon facts isn't considered Creative Writing. One needs to know the audience targeted and the content to be delivered thoroughly. This helped us overcome the challenge of completing tasks at a faster pace and instilled more confidence within ourselves. Group Leadership and Teamwork skills were also improved.

Awareness on Energy Consumption in Green IT

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Abstract—Green computing concept is to improve ecological condition. The principle point of green computing is to decrease harmful toxic materials. We methodically investigate its energy utilization which depends on kinds of benefits and get the conditions to encourage green cloud computing to save overall energy consumption in this system. Today, it is the significant issue to plan such equipment by which we accomplish effective energy and to limit of e-waste and utilization of non-harmful synthetic substances/materials in preparation of e-equipment. We can execute green computing in computer's fields as CPU servers and other peripheral gadgets (cell phones). By utilizing green computing, we can decrease resources usage and removal of electric waste (e-waste). It has been seen that computers and other hardware gadgets are increasing rapidly, so the amount of power consumption by them is also increasing. In this manner the level

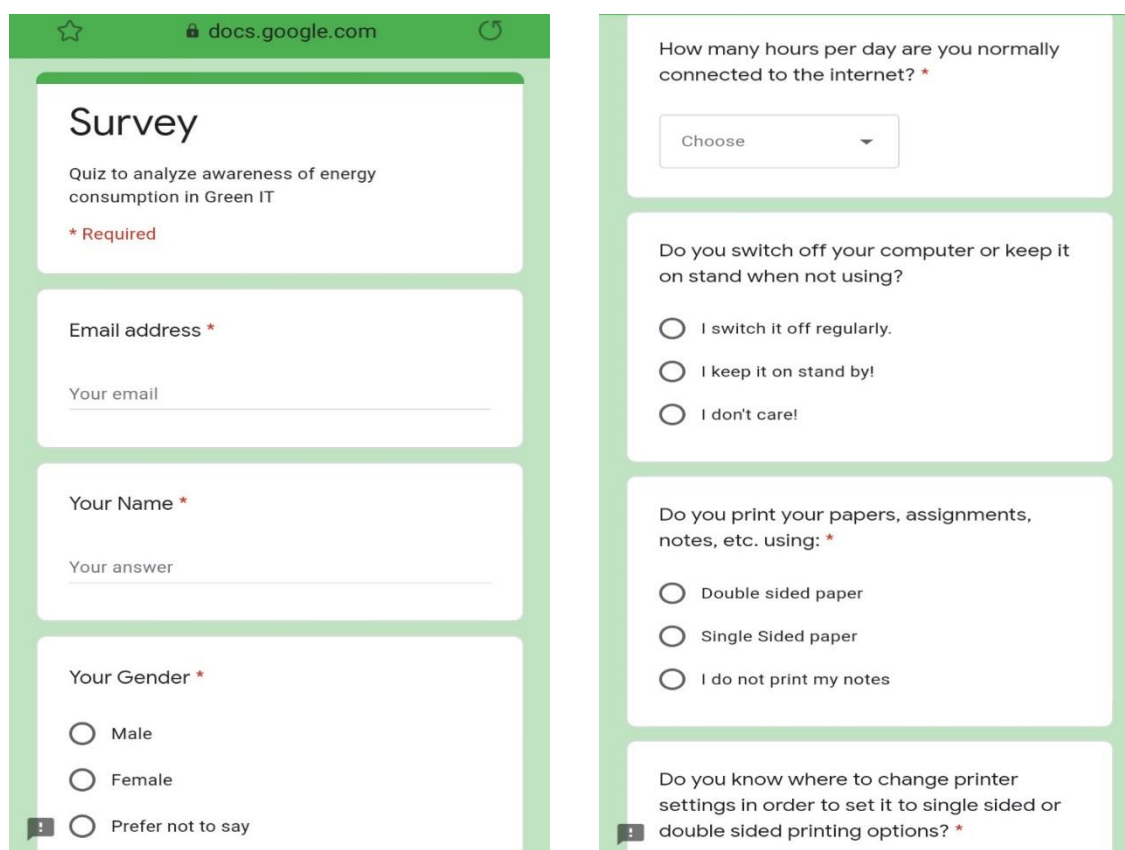requirements or even fulfill corporate sustainability goals.

II. GREEN COMPUTING, ISSUES AND BENEFITS

1. In computer technology virtualization is vital viable instruments. It is financially savvy, green energy and efficient computing. In this tool the principal server is separated into various virtual machines that assist the server with running various applications. By utilizing this procedure organizations can upgrade their server use rates.

2. The organizations should produce such processors which utilize

Group 7 (31 – 35)
SE IT-A   Mumbai
23rd Jan 2021   India

Day 2:

Introduction to Survey Designing and Study was the session's primary topic. The session started with the Agile Methodology videos, which helped us learn more about the methodology. The session on Survey Designing was really interactive and engaging. The professors showed us how to create a survey using various Online Survey Creating Tools like SurveyMonkey, Google Forms, Typeform, etc. Various videos were also shown during the session in order to understand the working of these Survey tools with ease. Our group of 5 members had decided on the topic – Awareness on Energy Consumption in Green IT, for both the Survey-based Research Paper.

Learning Outcomes: Questions were inputted in the Survey Form related to Green IT and Green Computing. The survey tool used was Google Forms. The survey form included questions with dropdown options and radio buttons. After the approval of the Faculty In-Charge, Mary Ma'am, we had circulated the Survey Form, based on Energy Consumption Awareness in Green IT, to our family members, friends and colleagues. The responses were organized in pie-charts and tabular manner, which was attractive and appealing. We generated lots of insights after seeing the responses.

Day 3:

The third session of ABL-IV program revolved around the Group Discussion Activity, which tests the communication skills and the overall personality of the person. The person needs to be patient and attentive while others express their opinions for or against the topic allotted. Two groups were allotted random topics at the same time. One of the groups had to speak for the topic while the other group was supposed to be against the topic. The topic given to us was "Is India Shining?" Our group was for the topic. We presented various facts and opinions for the topic.

Learning Outcomes: The activity was a great confidence booster for many people and was very engaging. This activity is carried out in almost every interview in order to test various features of an employee. The standard rules were followed by almost everyone during the Group Discussions. This activity made us confident while speaking and expressing our facts, opinions and thoughts. We also learnt debating skills, communication skills, etc.

Day 4:

An Introductory session on an Extempore Speech or a Lecturette was given along with a nice and attractive PPT. Lecturette is a 3 minute exercise where a candidate is required to present a speech related to a topic which he has to choose out of four given topics. Due to the pandemic, the activity was carried out online. Students were given random topics on the spot just few minutes before their turn on speak on the topic for minimum two minutes. All the topics were related to the ABL-IV theme: Green IT.

Learning Outcomes: This helped us in improving our communication skills. The most important skill developed is agile critical thinking. Since the topic was given on the spot, we had to collect information related to the topic as fast as possible in order to sound professional and engaging. Voice Modulation is one of the skills which needs to be developed while speaking on a topic.

Day 5:

Various extension activities were introduced to us in the fifth and final session of ABL-IV. Various videos on advertising, marketing and promoting the products and brand on social media platforms were shown during the session. A discussion with students was done to connect with society through online mode and social media platforms in order

to spread awareness about Green IT.

Learning Outcomes: During the final session, we learnt how to connect with society through online mode and spread awareness about something, which is really important to address environmental issues. We created a video, regarding the Awareness of Energy Consumption in Green IT. The video shows ten basic steps to avoid polluting the environment and make the world greener by Green Computing and Green IT norms. The video was put on Instagram, one of the most popular social media platforms.

Video Link: https://www.instagram.com/p/CKYMOdFHdvp/?igshid=sablya6wg5