SPS-5483-TRACK WORKPLACE CONDITION TO ENSURE EMPLOYEES SAFETY IN WAREHOUSE.

A project report submitted in the partial fulfillment

In

GURUCOOL

PROJECT BUILD-A-THON

By

FARZANA-SB20200077962

Under The Esteemed Guidance of

Mr.Hemant Kumar Gahlot

(RPA/AI Developer)

SMARTBRIDGE

SMARTBRIDGE EDUCATIONAL SERVICES PRIVATE LIMITED

JOIN TOGETHER | EXPLORE TECH | BUILD SOLUTIONS

(GURUCOOL)

28 SEPTEMBER 2020-20 OCTOBER 2020

(08 OCTOBER 2020-20 OCTOBER 2020)

SMARTBRIDGE EDUCATIONAL SERVICES PRIVATE LIMITED

08 OCTOBER 2020-20 OCTOBER 2020

CERTIFICATE

This is to certify that the Project Report entitled "TRACK WORKPLACE CONDITION TO ENSURE EMPLOYEES SAFETY IN WAREHOUSE"is the bonafide work done by FARZANA bearing the SmartInternz ID SB20200077962 submitted in partial fulfillment of the requirements of PROJECT BUILD-A-THON of GuruCool during the month of *September 2020-October 2020.*

Guide:

Hemant Kumar Gahlot

DECLARATION

I **Farzana,** employee of IBM,hereby declare that the project topic with title "*Track workplace condition to ensure employees"* *safety in warehouse* is the original work done by me.

   To the best of my knowledge & belief, I hereby declare that this project bears no resemblance to any other project submitted at SMARTBRIDGE.

Signature of the candidate

FARZANA

(SB20200077962)

ACKNOWLEDGEMENT

I express my immense gratitude and sincere thanks to the **Founder & CEO** of **SmartBridge**, **AMARENDER KATKAM** for his Constant and gracious guidance throughout the work,also for organizing the program.

I express my gratitude and sincere thanks to **Mr. Mahankali Surya Kiran** for his constant motivation,well explained and support through out the entire members.

I express my gratitude and sincere thanks to **Ms.Pradeepthi** for her sincerity,well explained and support.

I am grateful to my project guide who is **RPA Team Lead and AI Developer** named as **Mr.Hemant Kumar Gahlot** for his valuable guidance and giving me the opportunity to do my work in a better manner.

I am also thankful to our **Management** for providing all the facilities for completing the project.

THANK YOU

Project Associate

FARZANA-SB20200077962

ABSTRACT

Organizations today putting a lot of efforts to improve the safety performances in the workplace. Most companies understand the value of a safety culture and have ideaologies about what a hyper-vigilant safety culture looks like – *where employees are on high alert of their surroundings, perpetually evaluating risks for the task at hand and taking precautions accordingly.*

This increases efficiency and makes the workplace safer as it removes the need for people to be in dangerous areas.
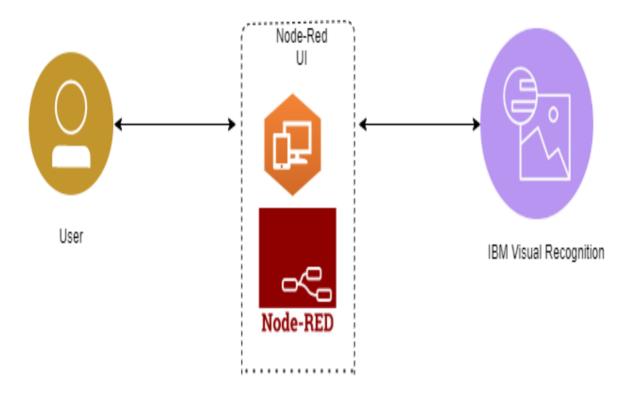
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CHAPTER-1

INTRODUCTION

Warehouses across the country are facing new and unusual safety challenges — but warehouse safety programs are not keeping up the pace, as indicated by elevated injury and fatality statistics.

To make matters worse, companies struggling to keep up with e-commerce giants often make sweeping changes and expect safety processes to catch up. But if a company doesn't have a safe warehouse, they are in danger of losing good-quality workers, facing large lawsuits and fines and losing their customer base.

CHAPTER-2

FLOWCHART

User

Node-Red
UI

Node-RED

IBM Visual Recognition

CHAPTER-3

DATASETS

✓ **DATASET MODELS ADDED TO VISUAL RECOGNITION SERVICE FOR DETECTING**

FARZANA-DATASET-1:

https://drive.google.com/file/d/1s3TpcEUT08-LebnhdBg1TZI3MYrz4uP6/view?usp=sharing

FARZANA DATASET-2:

https://drive.google.com/file/d/1VwQPCHgj4xV7DjfnRfr1ZtXmtv5PqC1O/view?usp=sharing

FARZANA PROJECT DOCUMENTATION PDF LINK:

https://drive.google.com/file/d/1I29nji7lPpJr04p2QHjee3FQoU3sM3TF/view?usp=sharing

CHAPTER-4

NODE-RED CODE SNIPPET

NODE-RED EXPORTED CODE(JSON FILE):

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Warehouse Safety Management

Warehouse safety starts with a solid management plan that includes training, regular meetings with employees and strategies for safety.

How to Train Employees in Warehouse Safety:

As mentioned before, well-trained and qualified workers are safer workers. While an employer cannot control the type of training an employee brings to the job, they can be sure that any continuing training is applicable, useful and comprehensive. It's particularly important with today's multi-ethnic workforce to provide training in the primary languages spoken by the workers.

When evaluating and considering which training programs to offer employees, look for programs that apply to all workers, as well as those that will help more specific warehouse roles. Everyone should learn proper procedures for hazardous material spills, while only certain workers who operate the forklift would need detailed forklift operation training.

OSHA's Hazard Identification Training Tool helps companies identify hazards in their own warehouses. Using this information, employers can then develop and find training programs to match where it is most needed.

Test employees with pop quizzes to see what information the employees have mastered and what needs more review.

CHAPTER-6

THEORITICAL ANALYSIS

THEORITICAL ANALYSIS:

Workplace safety is very important for each and every employee in the industry because all the workers desire to work in a safe and protected atmosphere. Health and safety is the key factor for all the industries in order to promote the wellness of both employees and employers. It is a duty and moral responsibility of the company to look after the employee's protection.Each and every person who leaves his home for his work in the morning should come back to his home in evening in good health. Have you ever imagined that your loved one will never be returning home? Or you get a call that he/she is in the hospital due to some incident occurred? These thoughts only get us goose bumps. This is the only reason that

Why it is important to create a safe working environment?These days, workplace health and safety procedures are important for the well-being of both employees and employers because human loss is immeasurable and intolerable. As, such loss or injuries can employ major loss to the families.All the industries do have safety risks but the management should devote their time to think and strategize the things that what safety precautions are required in their company to make sure that their workers are safe enough for all the time. Also, the management should confirm with all the workers related to their daily work and comfort. So, that the management can take the same step according to the desired aspects of workers. This helps them in improving the productivity and quality of the products and lot more.

ADVANTAGES

1. **Aware about the surroundings:** There are many employees who doesn't bother about their surrounding hazards. But, it is important to observe your co-employees working circumstances. Once you get to know about the particular hazards that occur at your workplace, then it will help you in reducing the risk and allow you to take the precautionary steps.

2. **Reduce workplace stress**: Most of the employees are not fit and healthy because of their busy schedule, which includes long working hours, work-pressure and conflicts occur with co-workers or with the boss of the organization. And, all these can lead to some illness or depression to the employees. Also, this not only affects their professional life but also creates the nuisance in their personal lives too. So, instead of waiting to get unfit, it is better that you start take care of your health, by taking regular breaks, sit in an appropriate posture with appropriate diet. It will be better for you to schedule your work accordingly and manage the things to reduce your workplace stress.

3. **Use tools appropriately:** Take appropriate precautions while using machinery or any other tool, instead of taking any shortcuts. Taking shortcuts is one of the biggest reason behind workplace loss. It's a biggest safety risk to use scaffolding as a ladder or one tool instead of another for a particular job. So, it is always recommended to use the correct tools and reduce the opportunity of workplace injury.

4. **Keep crisis exits which are easily accessible:** In case there is an emergency, you will need quick access to the exits. It is also advised to keep clear usage of equipment shutoffs which might stop you from performing at emergency.

5. **Update Your Supervisor about the unsafe conditions:** It is important that you keep updating your supervisor about the hazards or risks occur at workplace. They should be legally obligated to ensure that their employees are working a safe environment or not. And, in case, if the employees are not working in safe conditions, then it is the

responsibility of the supervisor to listen and understand their condition and create safe working environment for employees.

6. **Use mechanical assistance:** Whenever, you want to carry or lift up some heavy equipment's then you should use a conveyor belt, crank or forklift. There are lot of risks involved, if you try to lift something which is heavier, it can affect your weighing capability and can lead to some muscle displacement. So, make sure that use the appropriate tools for not harming yourself.

7. **Stay Alert:** There are many employees who usually compromise or ignore the alerts of advance warning and due to this, a number of workplace injuries or fatalities occur.

8. **Reduce Workplace Environment Stress:** Stress to any employee or to any co-worker, can lead into depression and into concentration problems. And the main reason includes, extended working hours, excess of work, insecurity of job and issues which occur at co-workers or professionals. So, instead of taking stress on your shoulders, you should discuss it with your supervisor and ask him/her to look after your problems which you are facing in the organization.

9. **Wear the right safety equipment's:** It is essential that you wear the right protection equipment tools during your work. And, the equipment's can be in any form like, earplugs, earmuffs, hard hats, gloves, full-face masks, safety gloves and any other equipment which is required to wear while working. These tools will prevent theworkers from the incidents that occur at workplace.

10. **Sit in a proper posture:** If have a sitting job, then it is essential than keep your posture correct, while working on a desk. You need to keep your shoulders in line and straight back to avoid any spine problem. Try to ignore stooping and twisting regularly and if possible, then try to use the comfort designed furniture and the safety equipment's, so that the desired things will be in your reach.

CONCLUSION

Creating a safe and productive warehouse setting starts with a culture of safety. This culture should be reinforced by the managers at all levels, especially executives and owners.

Creating a safe working environment begins with a safety plan that covers all parts of the warehouse and applies to all employees. Owners and managers should expect to put resources of time and money toward safety and willingly build these costs into the overall budget.

Employers should always remember that safe employees are more productive and more likely to remain loyal to the company. If employers take care of their employees, their employees will take care of their jobs.

- ⭐ *THANK YOU*

- ⭐   TO

- ⭐   HEMANT KUMAR GAHLOT(MENTOR)

- ⭐   ALL THE SMART-BRIDGE TEAM

ABOUT SMARTBRIDGE:

SMARTBRIDGE is an edTech organization with a vision to bridge the gap between academia & industry. Our outcome-based experiential learning programs on emerging technologies (Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Robotics) are building skilled entry - level engineers, for the corporate world. SmartBridge is in mission to build technology communities in academia to encourage students towards innovation & entrepreneurship. Since inception, we have trained thousands of students, faculty and working professionals on emerging technologies via technical bootcamps, hackathons, Summer & Winter Internship Programs.

Main objectives of SmartBridge

- Well directed career guidance programs for educational institutions
- Appropriate certification courses that suit the industry need
- Train the trainers; expanded awareness about the current industry standards
- Liaise with corporates to offer niche internships
- Establish technology development centers in colleges
- Specialised incubation centers in collaboration with corporates.

PROFILE:

SMARTBRIDGE EDUCATIONAL SERVICES PRIVATE LIMITED has been created with ingenuity to bridge the existing gaps in the transition phase of young graduates to working professionals. Our team works at continuous identification of the changing needs in the corporate sector with respect to the talent ramp up and acquisition.

THANK YOU

FEEDBACK TO MENTOR:

Firstly and Foremostly, Iam thanking to each and everyone to all the Management of SmartBridge team.

Secondly,I thank **Hemant kumar Gahlot** who is of **RPA Team Lead & AI Developer**-Such a great person to all of those unknown people.

   From the day the gurucool program started,Hemant sir is like a part of our person.For instance,while going the session of conducted workshop,**Hemant sir** is like have involved completely through **Telegram, Youtube, Slack Channel Etc,**for helping,for solving the issues of regular sessions as well about the project.

After the completion of gurucool workshop,**Project Build-A-Thon** started,Then also **hemant sir** have never got back.He started like a Flow From the beginning itself till the day of project Ended.

These words are I think,it may be a small but the feeling I got about Hemant sir is this exactly.Made the candidates very successful **From Then To From Now.**

I dont know about the other people,but I'm expressing about **Hemant sir** is What I felt obviously.

I Observed each and everything about our **Mentor Hemant sir** that Even if he is late about giving the solution for queries,but have given the *Correct and Perfect Solution* for each & every query.*This thing I mainly observed about "Hemant Sir".*

If we have this kind of support towards all of us,then we can get succeed in everything.

Eventually,**You Stood Up For Us Sir...Thank You,Thank You So much!!!**