THE TRAGEDY OF FLIGHT:A COMPREHENSIVE CRASH ANALYSIS

INTRODUCTION

OVERVIEW :

An aircrash analysis is a detailed investigation into the causes of an aviation accident.A main objective of this project is to raise awareness of flight safety and better understand its problems and progress, So aviation industries continue to improve. The most prominent finding is crashes and facilities save decreased while the number of passengers has increased. Furthermore patterns on each different variable, such as location. operator; and phase of flight, provides us with decipher insights into the airplane crash patterns. Goal of aviation accidents

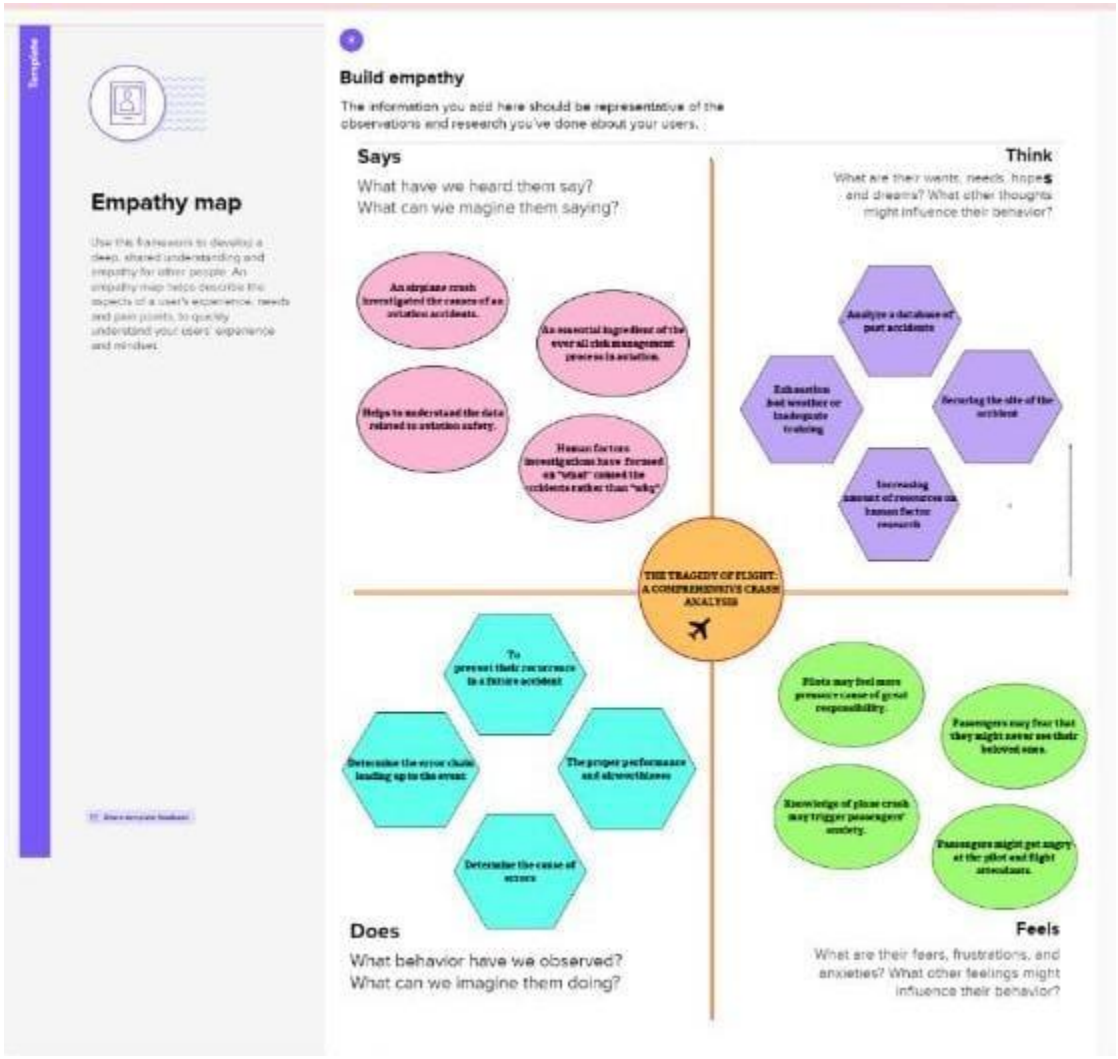
analysis is performed to determine the cause of error once an accident has happened. In the modern aviation industry, it is also used to analyze .A database of past accidents in order to prevent an accident from happening.

PURPOSE :

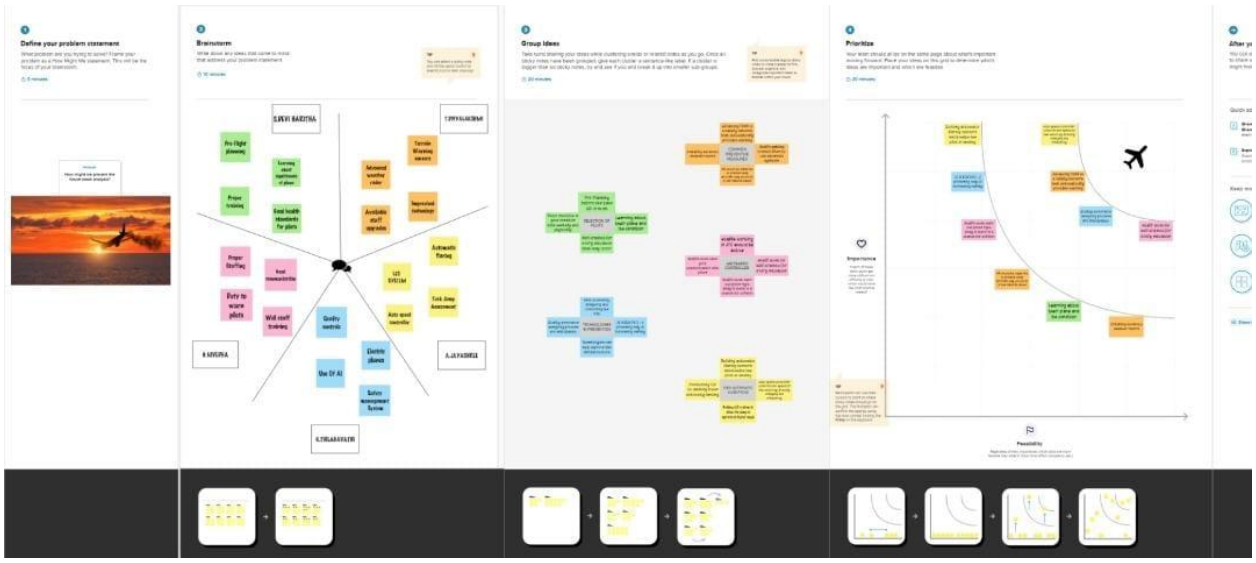
The primary purpose of a crash investigation is to determine the cause of the crash factors involved in the crash and any contributing factors involved in the crash. It is a measure to prevent accident rates from increasing are developed by as a result of an analysis focused on activities and causes of them. Prevention must primarily focus on training and education of aviation experiment.Technical support to air traffic and control issues as well as field of care for labor force.The most common reason for air crash is due to bad weather conditions. It is a very important inspection procedure in place. This will help to detect and fix any problems before they lead to an accidents.To avoid this it is important to avoid flying in the areas where there is high risk of bolt strike.These precautions may prevent airplane crashes.

PROBLEM DEFINITION & DESIGN THINKING

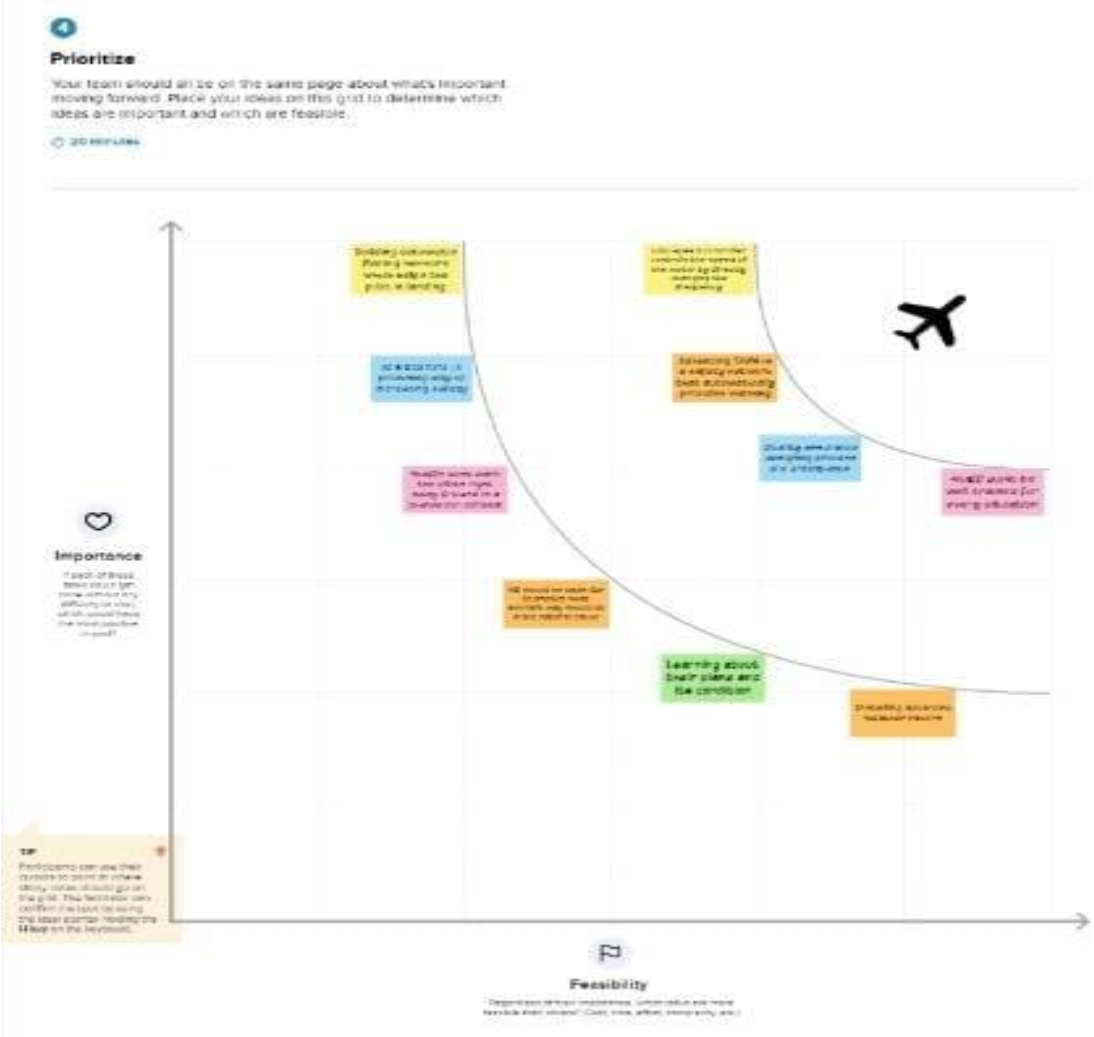
EMPATHY MAP :



BRAINSTORMING MAP


Define your problem statement
Brainstorm
Group Ideas
Prioritize

3.RESULT



4.ADVANTAGES AND DISADVANTAGES:

Many accidents with injuries and loss of life could have been prevented by technology. Technology and safety measures offer a variety of safety and operational solutions that can, directly or indirectly, address importance. Safety issues and contribute to flight accident prevention. It can provide tools to increase and simplify the information available to the flight crew, reduce pilot

workload, decision making Support or increase survivability. The technologies are awareness and warning systems, Digital range image algorithms for flight guidance aids for helicopter low level flight,laser radar, digital mapping.

DISADVANTAGES:

It is more expensive and if there minute problems occur technology it causes a huge flight crash.Creating technologies for aviation facilities, huge investment required. A small mistake which Can be very Results in a dangerous flight crash.

05.APPLICATIONS:

One of the most effective ways to prevent accidents in the workplace is to conduct regular safety inspections. Safety inspections allow employers to identify hazards in the workplace and create actionable plans to mitigate or eliminate the risks they pose.Because workplace hazards are constantly changing, it's important for companies to conduct inspections after regular intervals.

Employee Safety Training

It's imperative for companies to train and educate employees about hazards in the workplace and guide them about safe working practices. Conducting regular training sessions ensures that employees are aware of workplace hazards and know how to stay safe.Training can be offered for different things, such as proper procedures for lifting heavy items, handling hazardous substances, and how to respond in case of an emergency. Employees must also be trained to operate machinery safely.

Regular PPE Inspections

Personal protective equipment (PPE) is required for certain jobs. It's important for companies to offer protective equipment to employees performing risky jobs, such as working on a construction site or those working with volatile substances.PPE such as helmets, goggles, and harnesses must be regularly tested to ensure they don't fail in case of an unexpected incident. More importantly, employees must also receive regular training about how to use PPE properly.

Using Appropriate Lighting

Making sure the workplace is properly lit can also help in accident prevention. All work areas and adjoining spaces must be properly lit. For employees working offsite, the employer may have to arrange for proper lighting equipment.

Imposing Limits on Manual Labor

Many jobs require employees to regularly lift heavy items and transport them from one place to another. Employers should impose limits about the number of trips each employee can make, while also mandating regular breaks.Employers must also provide proper equipment and machinery to employees to reduce physical strain.

06.CONCLUSION

Any major problem can cause an air crash but mostly in safety fights the passenger and crew need to follow the instructions carefully. Safety on the aircraft is an important Maintenance part. The person who incharge should make sure all the compartments are in good condition and maintain them regularly. But

accidents can happen. To be safe, the Federal Aviation Authority advises passengers to count the rows between their seats and the exit as this will give them an idea of how far they are away. One way of surviving a plane crash with fewer injuries is by wearing comfortable clothes wherein one can run and move around with lower effort would not be ideal to wear high-heels, skins, slippers, and other similar attine when bounding planes as they will not be helpful in running or sliding down the fabric in case of emergency Wearing of comfortable je lace-up shoes and comfortable top is more effective in surviving plane accidents Read and Listen to Safety Information. Some ignore preflight instructions given by amendments as they have heard it all before. But, passengers must keep in mind the safety information as it could help them decide what should be done in a flight glitch. Reading the information card found in from seats will educate passengers of actions they can do in events of these in accidents be Ready for Landing. In case there would be an emergency landing, passengers might have time to position themselves correctly to reduce the risk of injuries during impact. Also, passengers of a plane that node to land should keep away sharp objects that may cause hares to him or to other passengers. Connect landing positions are indicated in the information can and will possibly prevent whiplash get away from the Plane. After the plane lands and passengers are able to move, they must quickly evacuate the aircraft with a high probability that it will explode .The above are just some of the things that will help you in case you meet an aircraft accident. These accidents can be caused by pilot emo, mechanical failure, and many foes that could go wrong in your flight. One must always keep in mind the above Plane Crash Survival Tips as it can help in surviving a tragedy or a plane crash.

07.FUTURE SCOPE:

All of the possible accident causes can be categorized into three major factors such as technical errors, human errors and nature causes. In the future, if we have to reduce the chance of aviation, we just have to solve the problems caused by these errors.

Even though we cannot resolve natural causes, we can try introducing new technologies to try to reduce the chance of accidents. Improving the pilot's decision making skill at the moment can cause less damage.

As for technical errors, introducing a failure free engine, sensors that show very accurate readings and developing an in-built program to help the pilot with any problem that may occur throughout their journey can reduce the accidents. It may feel like impossible to make these things possible, but the introduction of the jet engine in the 1950s, electronic digital instrument, known as the ‘glass cockpit’ in the 1970s and the advent of fly-by-wire technology in the 1980s gives us hope that everything is possible.

There is still room for development for improvements in sensors – to make the sensors to identify the nearby plane more accurately, navigation equipment and air traffic control technology such as anti-collision control, like introducing program to help the staffs to identify the nearby plane and find a way to communicate with them to alert the pilot about the chance of collision and sharing their changes in altitudes.

Even if the technology improves a thousand times better, it would still be a waste if pilots cannot use these technologies to their fullest to avoid accidents.

Aviation accidents are a chain of events that almost always involve an element of human error.

We may reduce this error by recurrent training, in which pilots and crews can refresh their skills and also learn new skills if necessary. To avoid pilot error, they must perfect every skill that is required to fly the plane. And introducing a new way to prepare for emergency situations in the same way astronauts train themselves to travel to space. By this method of experiencing every possible way that aviation may occur, pilots will be trained mentally and physically for those situations.

And also performing a checklist with full consciousness, without skipping any steps or procedure is mandatory. Communication, which is the most important thing to fly a plane, has to be clear between the pilots and the staff. The staffs must train themselves how to communicate the altitude, location and other important details of the plane without any trouble.

08.APPENDIX

SOURCE CODE :

https://drive.google.com/file/d/1TZAT28uvW-6vew3EzdrIsGE8_qPsuNS6/view?usp=drivesdk