**Working of Face Recognition system:**

It has been around for decades. However, in recent years it has seen more widespread adaptation.

**ARTIFICAL INTELLIGENCE** leads this system software. This has led to higher accuracy and faster processing times Government and private companies are taking notice it is expected to reach $12.92 Billion by 2027 and it is not just for safety and security .this software is starting to appear in retail transportation and the banking industry **but What is facial recognition system Technology** it is a biometric tool as with other commonly used biometric technologies like fingerprint recognition ,iris recognition and finger vein pattern recognition facial recognition identifies a person based on specific aspects of their physiology though the software can vary the process of facial recognition tends to follow three basic steps First, your face is captured with photo or video or in a crowd in this real time, the software then measures a variety of facial features called land marks or nodal points on the face these could include the distance between the eyes the width of nose, depth of eye sockets distance from forehead to chin each program uses different nodal points and may collects up to different measurements this information is then collected into a mathematical formula whi8ch detect your unique facial signatures that facial signature is then compared to a data base of known faces this can all happen in a matter of seconds can be traced back to the 1960s .one early system developed by **Woodrow Wilson Bledsoe** classified photos by manually recording the coordinates of facial features using an electronic stylus when the system was given a photograph of an individual it could retrieve the images that most closely resembled it from a database in the 1990’s the U.S defense advanced research projects agency and the national institute of standard and technology designed a face recognition system which eventually led to more sophisticates . one early version of this technology was tested at 2002 super bowl when law enforcements official scanned the crowd and found several minor criminals Although that experiment also yielded a higher number of false positives however , the technology blossomed in the 2010’s because of the rapid developments in artificial intelligence by police to identify suspects in the yield However since its inception facial recognition has been polarizing a significant use of facial recognition technology is in the area of safety and security and law enforcement agencies use it to fight petty crime help locate missing people and even uncover local criminals security check points at airport worldwide are increasingly using such technology to protect flyers and to identify criminals trying to enter the country the department of homeland security also uses facial recognition to find people who have overstayed visas or who are under criminal investigation today several companies are developing watchlist as a service using face recognition data platforms to help prevent shoplifting and violent crime facial recognition technology is getting faster and more accurate every year this means that this could also soon be used to make our lives more convenient using your faceprint and financial institutions will be able to seamlessly verify who you are without the use of physical ID this is even a bar that uses facial recognition to create better service for customers there are vocal arguments against facial recognition technology with the biggest being its threat to an individuals privacy some cities across the world are already working toward banning real time face recognition your facial data can be collected and stored without your permission. there are also concerns regarding safety apps that allow individual to use facial recognition software , Finally the technology is still far from perfect many facial recognition algorithms produce far more false positives on non-white faces it is not difficult to fool facial recognition systems researchers have already developed anti-facial recognition glasses which make wearers undetectable .this technology is increasingly used in mobile devices and consumer products as a way to authenticate users .retailers are using it to stop theft and to identify customers in need of assistance and some automotive manufacturers are developing ways to use the technology in place of car keys facial recognition could also be used to target products to specify groups by gender or age to offer a personalized experience to restaurant customers or to boost patient care at hospitals and clinics