Assignment -1

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★ **List out 20 use cases of the Internet of Things.**

1. **Smart Metering**
   a. *Smart Grid*

2. **Digital Twins**: *A digital twin is a virtual replica of physical entities such as devices, people, processes, or systems that help businesses make model-driven decisions. With the help of IoT sensors, businesses collect data that is needed to create a digital twin.*

3. **Smart Logistics**
   a. *Fleet Tracking*
   b. *Platooning*
   c. *Connected Vehicles*

4. **Home Intrusion Detection Systems**
   a. *Smart locks*
   b. *Motion detection*

5. **Smart Homes**
   a. *Remote Control Appliances*

6. **Smart Workplace**
   a. *Sociometric badges*

7. **Smart Retail**
   a. *Supply Chain Control*
   b. *Near Field Communication (NFC) Payment*
   c. *Layout Optimization*
   d. *Smart Product Management*

8. **Digital Health**
   a. *Fall Detection*
   b. *Companion Robots*
   c. *Medical Fridges*
   d. *Patient Surveillance/Remote Patient Monitoring*

9. **Water Management**
   a. *Water conservation with alerts*
   b. *Smart Irrigation*
   c. *Leakage Management*
   d. *Water Quality Management*

10. **Smart Cities**
    a. *Outdoor surveillance*
    b. *Smart lighting*
    c. *Electronic Road Toll Collection and Traffic Management*

    d. *Smart parking*
    e. *Noise Monitoring*
    f. *Structural Health Monitoring*
    g. *Waste Management*

11. Smart Factories

    a. *Enterprise Asset management*
    b. *Predictive maintenance*
    c. *Industrial process automation/optimization*
    d. *Energy Management*

12. Accessories to Mobile Phones

    a. *Smart Watches*
    b. *Fitness Trackers*
    c. *Wearables*
    d. *Hearables*

13. AR/VR Applications

    a. *Extended reality experience in AR*
    b. *VR places users in a digital world*
    c. *In medical procedures*
    d. *In shopping experiences*
    e. *Entertainment sectors*

14. Drones

    a. *Cinematography and Photography*
    b. *Rig Inspections in Oil Rig factory*
    c. *Delivery of lightweight goods*
    d. *Search and Rescue*

15. Smart Agriculture

    a. *Streamlining Operations*
    b. *Tracking of herds*
    c. *Moisture Level Management*
    d. *Water Quality Management*

16. Machine-to-Machine (M2M) Connected Devices

    a. *IoT-enabled machines*
    b. *Track machine wear-and-tear*
    c. *Mapping machine workloads, inputs and outputs*
    d. *Safe and Efficient*

17. Companion Robots

    a. *Cleaning Robots at various sectors of industries*
    b. *Waiting Robots at Restaurants*
    c. *Assisting Robots at Hospitals*
    d. *Security Robots at Banks*

18. Autonomous and Connected Vehicles

    a. *Level 5 autonomous vehicle without human intervention*
    b. *Auto Drive*
    c. *Host of onboard sensors are being used to capture information about road conditions*

    d. *Car-to-Car communications*
    e. *Autonomous Delivery*

19. **Asset tracking**

    a. *Locate and monitor key assets*
    b. *Tracking supply chain*
    c. *Optimizing logistics*
    d. *Maintain inventory levels*
    e. *Prevent quality issues*
    f. *Detect theft*

20. **Saving the Bees**

    a. *Combat honeybee colony collapse disorder*

21. **Thwarting Illegal Fishing**

    a. *The Port of New Bedford installed Dell Edge Gateways, with V5 Systems solar video surveillance technologies to better track who was coming in and out of the port*

22. **Redefining Field-Based Intel for the Oil and Gas Industry**

23. **Imbuing Jet Engines with Artificial Intelligence**

24. **Real-time data analysis: processing incoming telemetry data, aggregation, and event detection**

25. **IoT-Based Pest Control**

IoT ANALYTICS — 2018 — *Insights that empower you to understand IoT markets*

IoT Segment	Global share of IoT projects[1]	Americas	Europe	APAC	Trend[2]
1 Smart City	23%	34%	45%	18%	↗
2 Connected Industry	17%	45%	31%	20%	↘
3 Connected Building	12%	53%	33%	13%	↑
4 Connected Car	11%	54%	30%	12%	→
5 Smart Energy	10%	42%	35%	19%	→
6 Other	8%	50%	34%	11%	→
7 Connected Health	6%	55%	29%	15%	→
8 Smart Supply Chain	5%	49%	36%	12%	↗
9 Smart Agriculture	4%	39%	26%	31%	↔
10 Smart Retail	4%	53%	35%	9%	→

N = 1,600 global, publicly announced IoT projects

Americas | Europe | APAC | MEA | N/A

1. Based on 1,600 publicly known enterprise IoT projects (Not including consumer IoT projects e.g., Wearables, Smart Home). 2.Trend based on comparison with % of projects in the 2016 IoT Analytics Enterprise IoT Projects List. A downward arrow means the relative share of all projects has declined, not the overall number of projects 3. Not including Consumer Smart Home Solutions. **Source**: IoT Analytics 2018 Global overview of 1,600 enterprise IoT use cases (Jan 2018)
Source: IoT Analytics, Jan 2018