

Hotel employees are running some of the most cutting edge technologies to benefit, not only the hotel and customers, but also the planet. 🌍 Smart hotels are going way beyond the key-card, to an immersive technological experience for the customer.

Almost everyone has, or will, stay in a hotel, with over 700,000 worldwide. This industry is once again thriving post-COVID, as revenue increases to almost \$200,000 billion in 2023.

As you explore the technological advances and gaps in smart hotels, what new ideas will you have to contribute?

Throughout this Expedition, you will LEAD YOUR LEARNING by fully engaging with the resources and activities. You will be asked to -



- **REFLECT** about your skills, learning goals, and purpose
- **STRETCH** your knowledge and skills through active learning
- **INNOVATE** and iterate solutions for real-world challenges
- **SHOWCASE** your innovations and learning in a dynamic way

We encourage you to utilize our [Expeditions Idea Book](#) as you navigate this Expedition as a resource and space to get your creativity flowing, organize your ideas and research, and share your innovations and reflections.



Every so often you may see this briefcase icon. That indicates an opportune time to have a conversation with a mentor or local business leader to discuss industry trends, ideate solutions, solicit feedback, and/or present your project. (Speak to your educator if you need support making contact.)

REFLECT

First, let's "Tour The High-Tech Hotel of the Future- TODAY" As you watch **the video**, think deeply about these questions:



- What would it be like for you to stay in this hotel?
- What technology features interests you the most?
- What other tech features can you envision for this hotel or others?



WHAT ARE SMART HOTELS?

A [Smart Hotel](#) is a hotel equipped with technologies such as Artificial Intelligence (AI) and IoT (Internet of Things), with the aim of improving management, efficiency and control from the hotel management, as well as offering a better service to guests.

WHAT ARE THE BENEFITS?

The benefits of technologically advanced hotels are the [3 Ps of sustainable tourism development](#)-

PEOPLE

Guests enjoy comforts at their fingertips with **less waiting** and [luxury options](#) AND less stress for employees as they can manage their duties more easily.

PROFIT

Hotels are saving hundreds of thousands of dollars by reducing the number of employees and their energy bills, maintenance costs, and other wastes.

PLANET

Smart hotels are saving unprecedented quantities of energy and water. For example, Marriott [reduced its greenhouse gas emissions by 70,000 tons](#) in just one year.



MYTHS VS FACTS ON SMART HOTELS



Your data will be compromised staying at these types of hotels.

Security measures are in place, but always do your research!

Robots/AI are going to put all people out of work.

There is an [interdependence between AI and humans](#). Moreover, AI frees up employees to focus on higher-value tasks, according to Dylan Roberts, a partner at KPMG.

We will lose human interaction.

Customer service will always be the hotel industry's top priority; people will always be available for assistance.

STRETCH

Dive into these smart hotels and discover all they have to offer.

Right: In this smart hotel room, a virtual assistant wakes up the guest to start a yoga routine on their bed using a full-length mirror that allows guest to see their alignment and posture while exercising.



- Learn more about how [technology](#) is reshaping the the hotel industry.
- Look how a Marriott in China uses [facial recognition](#) to check-in or how [robots](#) take over the luggage duties a the Sheraton in Los Angeles.
- How much can smart hotels really help the environment? [Find out here.](#)
- Check out what it's like to stay in this Japanese [hotel](#) where you are greeted by a humanoid and a T-Rex robot.
- Coming soon to STEAM: [Hotel Life: A Resort Simulator](#) where you are the manager of a hotel in an idyllic location. Build, design, and develop your hotel, while creating exceptional guest experiences.

Mentors could speak to how their job, company, or industry has changed, where they see it going in the future, or the overall impact of recent trends.



Let's look at "The Hotel of the Future- Powered by Tuya". [Tuya Smart](#) is an innovate Asian company using a cloud platform that connects a range of devices via the IoT. This enhances the guest experience, but also helps to save energy for the planet.



Every 22 minutes someone books with Marriott Hotel under one of the 35 brands



INNOVATE

What can you innovate for the hotel industry to solve a challenge or need in your community or the world? (Feel free to choose an idea from our choice board below.)

IDEA 1: How can smart technologies help pandemic-proof hotels? Create an idea board or product design about your innovation and develop a pitch that highlights it with inspiration from "[How Smart Hotels Are Revolutionizing the Hospitality Industry.](#)"

IDEA 2: Create the smartest hotel in the world; develop a blueprint. Design it from the customer-experience perspective.

IDEA 3: Perform some user testing on an existing Smart product and think of ways to remix and improve it for a hotel setting. Is there a Smart product that has a flaw you'd like to fix? Consider diverse users, then use that feedback to improve and recreate a Smart product.

IDEA 4: Create a movement at your school or community to amplify this industry or the skills sets needed to succeed in this field. You can start a chapter for a Career & Technical Student Organization (CTSO) or professional organization related to this field, host a college/career fair or local competition to highlight this industry. How about doing community outreach about AI for good? The possibilities are endless!



PRO TIPS:

- If the choices above don't appeal to you, you can create-your-own or generate ideas by exploring hackathon sites like [hackclub](#) or [devpost](#).
- As you ideate, consider using [customer journey mapping](#).



Is there a mentor or industry partner who can discuss the UX Design Process to support your innovation?

How can you gather mentor feedback as you iterate and innovate?

SHOWCASE

Once you complete your innovation, share your learning with the world with an audience in one or more of these ways:

Why not plan a showcase where you and your peers can share presentations with the whole school, at a parent night, or for a panel of industry professionals?



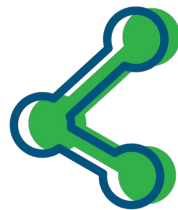
DIGITAL PORTFOLIO OR SITE	Create, code, or build a simple webpage to highlight your innovation, project, and learning journey. Consider bulb digital portfolios, Replit, GitHub, Google Sites, or Wix. Once it's developed, present it to an audience, and solicit feedback.
ONLINE MEDIA	Create a blog, vlog, or social media campaign (LinkedIn, YouTube, etc.) to highlight your innovation, project, and learning journey. Feel free to tag @nafcarreracads.
PITCH IT!	Pretend your audience is a group of investors. Pitch your innovation to them, sharing what you learned in the process. Allow for a Q&A, then solicit feedback on the quality of your project and/or pitch.

PRO TIPS:



- Level up your project by entering a school or district competition or challenge. (Think the science fair, CTSOs, hackathons, etc.)
- Not interested in options from our Showcase menu? You can present your creations in a format of your choosing.

STUDENTS, SHARE YOUR INNOVATION!



NAF would love to see your creation! After you get your educator's permission, submit yours [HERE](#). We may highlight you on social media!

(We WILL NOT share your work without your educator's and your approval.)