### Case Study 1: IDEO Shopping Cart Project

In 1999, IDEO, a leading design firm, was challenged to redesign the traditional shopping cart. The goal was to address several critical issues, including safety concerns, maneuverability, and user convenience. To kick off the project, IDEO’s design team immersed themselves in the shopping experience by visiting grocery stores, observing how shoppers used carts, and identifying common pain points. They conducted in-depth interviews with customers, store employees, and other stakeholders, gathering a wealth of insights that ranged from child safety concerns (e.g., children falling out of carts or getting hurt) to frustrations with navigating bulky carts through narrow aisles. Armed with this user-centered research, IDEO zeroed in on the primary problem: the shopping cart needed to be safer and easier to use. To solve this, the team engaged in a highly creative brainstorming session, generating ideas that spanned from detachable baskets to better wheels and ergonomic handle designs. Once the team had collected a variety of ideas, they quickly moved to building prototypes using low-fidelity materials. These early versions of the cart were tested in real grocery stores, with customers providing direct feedback on how the new designs performed in actual shopping scenarios. The feedback was instrumental in helping IDEO refine their prototypes—modifying the wheels, handles, and basket designs to address the identified issues. After several iterations and rounds of testing, the team arrived at a final design that included improvements such as better safety features for children and enhanced maneuverability, transforming the shopping experience for users. IDEO’s collaborative, user-centered process was key to the success of the project and has since been cited as a model for rapid prototyping and user feedback integration.

**Requirements and Instructions for Students:**

1. **Read and Discuss:** Thoroughly read the case study on IDEO's Shopping Cart Project and discuss with your team how IDEO might have applied each phase of Design Thinking (Empathize, Define, Ideate, Prototype, Test), without the phases being explicitly mentioned. Your task is to uncover these phases through your group discussion.
2. **Create a Visual Presentation:** Use large-size paper and colored markers to create a visual representation of your case study analysis. Your presentation should include:
   * An overview of the case study.
   * A breakdown of how each Design Thinking phase was applied (based on your group's findings).
   * Key lessons learned and their broader applications.
3. **Prepare Questions:** Prepare at least **three** questions to ask other teams after your presentations. These questions should be focused on your own presentation content to check the understanding and attention of other teams.
4. **Present Your Findings:** Present your case study analysis to the class. Be ready to answer questions from your peers and the instructor.
5. **Engage with Other Teams:** After your presentation, actively engage with other teams by asking your prepared questions and participating in the discussion.

### Case Study 2: Airbnb Redesign

Airbnb's growth into a global powerhouse is largely due to the application of Design Thinking in its platform's user experience. In its early days, Airbnb’s founders realized they had to understand the challenges hosts and guests faced in order to improve their service and grow the platform. They traveled to New York, where they lived with and interviewed hosts who were listing their homes on the platform. Through this process, they gained deep insights into the frustrations and obstacles hosts experienced, such as struggling to take professional-looking photos of their homes, which affected their ability to attract guests. Additionally, they uncovered a significant trust issue between hosts and guests, which made it harder for people to feel comfortable using the platform. With these insights, Airbnb identified two key problems: hosts needed better photos of their listings, and both parties needed reassurance that the platform was trustworthy. They brainstormed various solutions, such as offering professional photography services, creating a secure payment system, and building a review system that allowed both hosts and guests to leave feedback. To test their ideas, Airbnb offered free professional photography to a few New York hosts, which led to increased bookings. The photography service was then rolled out to more hosts, and the secure payment and review systems were gradually implemented as well. Throughout this process, Airbnb consistently sought feedback from its users and made iterative improvements to its platform. This dedication to understanding and improving the user experience was crucial to Airbnb's eventual success, turning the company into a model for how Design Thinking can transform a business.

**Requirements and Instructions for Students:**

1. **Read and Discuss:** Thoroughly read the case study on Airbnb’s platform redesign. With your team, discuss how each phase of Design Thinking might have been applied throughout the process, based on the description. Focus on analyzing these stages through conversation.
2. **Create a Visual Presentation:** Use large-size paper and colored markers to create a visual representation of your case study analysis. Your presentation should include:
   * An overview of the case study.
   * A breakdown of how the Design Thinking process was applied (based on your findings).
   * Key lessons learned and their broader applications.
3. **Prepare Questions:** Prepare at least **three** questions based on your own presentation content to ask other teams, checking their attention and understanding of your work.
4. **Present Your Findings:** Present your case study analysis to the class. Be prepared to answer questions from your peers and instructor.
5. **Engage with Other Teams:** Actively engage by asking your prepared questions and participating in discussions after the presentations.

### Case Study 3: IBM’s Design Transformation

IBM’s shift toward a more user-centered approach marked a turning point for the company, as it recognized the need to simplify its products and services to better meet client needs. To achieve this transformation, IBM first engaged in extensive research to understand the pain points experienced by its clients, many of whom were struggling with overly complex interfaces and features that didn’t align with their workflows. With a clearer understanding of these challenges, IBM’s teams focused on simplifying their products to create more intuitive user experiences. This process involved brainstorming ideas to reduce complexity and improve usability, which led to the creation of prototypes for simpler interfaces and new service concepts. These prototypes were tested with selected clients, allowing IBM to gather critical feedback that informed further design iterations. By continuously refining these prototypes, IBM was able to drastically improve the usability of its products and enhance client satisfaction. The company’s broader organizational shift toward embedding Design Thinking principles in their workflow has since helped them maintain their competitiveness in the market and create products better tailored to client needs. IBM’s experience is a powerful example of how large corporations can adapt and innovate by focusing on the user experience.

**Requirements and Instructions for Students:**

1. **Read and Discuss:** Thoroughly read the case study on IBM’s Design Transformation. With your team, discuss how the Design Thinking phases were likely applied. Use your insights to uncover the process.
2. **Create a Visual Presentation:** Use large-size paper and colored markers to create a visual representation of your case study analysis. Your presentation should include:
   * An overview of the case study.
   * An analysis of how the Design Thinking process was applied (based on your findings).
   * Key lessons learned and their broader applications.
3. **Prepare Questions:** Prepare at least **three** questions based on your own presentation to ask other teams and check their understanding and engagement.
4. **Present Your Findings:** Present your case study analysis to the class, and be ready to answer questions from the audience.
5. **Engage with Other Teams:** Participate in discussions by asking your prepared questions and contributing to other teams' presentations.

### Case Study 4: Apple’s Product Development

Apple has long been renowned for its focus on creating products that not only meet functional needs but also provide seamless, intuitive, and aesthetically pleasing user experiences. Apple's design philosophy is centered around understanding how customers use technology and what they expect from their devices. This deep understanding of user needs is rooted in thorough market research and constant user testing. For instance, when Apple was developing the iPhone, the goal was to create a device that combined multiple functionalities—phone, music player, and internet browser—into a single, easy-to-use product. The team explored numerous design concepts, focusing on usability and simplicity, without compromising on style. They built high-quality prototypes of the iPhone, which underwent multiple rounds of rigorous testing to ensure the device was both functional and elegant. Every detail, from the placement of buttons to the shape and size of the screen, was meticulously refined based on user feedback. This iterative approach helped Apple produce a product that not only met but exceeded user expectations, revolutionizing the smartphone market and setting new standards for design in the tech industry. Apple’s commitment to continuous refinement and user-centered design remains a cornerstone of its success.

**Requirements and Instructions for Students:**

1. **Read and Discuss:** Thoroughly read the case study on Apple’s Product Development. With your team, discuss how Apple applied Design Thinking throughout their process. Use your conversation to identify the phases without explicitly being given the steps.
2. **Create a Visual Presentation:** Use large-size paper and colored markers to create a visual representation of your case study analysis. Your presentation should include:
   * An overview of the case study.
   * A detailed breakdown of how Apple applied Design Thinking principles (as deduced by your team).
   * Key lessons learned and their broader applications.
3. **Prepare Questions:** Prepare at least **three** questions based on your own presentation content to ask other teams and check their understanding.
4. **Present Your Findings:** Present your case study analysis to the class, and be ready to engage with questions from peers and the instructor.
5. **Engage with Other Teams:** Actively engage with other teams by asking your prepared questions and contributing to their presentations.