

College Student (2- 3 students)

Emmy is an archeology major and is currently working with a desktop computer that has an i3 CPU , limited RAM and integrated GPU. When she uses more than one application her computer shuts down. She is in desperate need of a new computer and does not want to spend too much money. She already owns a laptop but needs a desktop computer because her laptop screen is too small. Your task is to design a new computer that will not cost more than \$700 (including peripherals not software)



Use <https://pcpartpicker.com/> to design your computer and price it. Make sure you market your computer so Emmy will purchase it!!!!

Presentation is 20% of your grade.

ARCHITECT (2 - 3 students)

Jessica is an architect. She is currently working with a computer that runs autoCAD 2020 however she is wants to purchase autoCAD 2022. Jessica needs you to designer a new computer to help her run autoCAD 2022 and make her designs come to life. She is looking for more photorealistic 3Dimages. Look at the link below to get an idea

<https://www.youtube.com/watch?v=BgrwoJXRoqs>

Jessica does not want to spend more than \$3,000 (including peripherals not software)



Making 3D Photorealistic rendering in AutoCAD2022

AutoCAD 2022

Access to industry-specific toolsets, including:

- [Architecture](#)
- [Electrical design](#)
- [Map 3D](#)
- [Mechanical design](#)
- [MEP](#) (mechanical, electrical, and plumbing)
- [Plant 3D](#), including P&ID functionality
- [Raster design](#)

Use <https://pcpartpicker.com/> to design your computer and price it. Makes sure you market your computer so Jessica will purchase it!!!!

Presentation is 20% of your grade.

Flight Simulator (2 - 3 students)

Steven is a former pilot and spends many hours on Microsoft Flight Simulator. He is currently running Microsoft FS 2019 on his computer which is slow. Steven want you to design a computer to run FSX and makehis flight 3D realistic. Look at the link below to get an idea

<https://www.youtube.com/watch?v=ReDDgFfWIS4&t=37s>

Steven does not want to spend more than \$3000 (including peripherals not software)



Use <https://pcpartpicker.com/> to design your computer and price it. Makes sure you market your computer so Steven will purchase it!!!!

Presentation is 20% of your grade.

Video Editing (2-3 students)

Liz is a professional video producer & editor. All of her projects involve working with 4k video files, but her current computer is struggling to work with all that data. She uses Adobe Premiere Pro for all her video editing. Liz also needs more storage space to accommodate working on & storing 5 hour long videos.

Look at the link below to get an idea about the requirements for her work:

<https://helpx.adobe.com/premiere-pro/system-requirements.html>

Liz has \$4,000 to spend on her new system, which must include enough storage. The storage could be external, but should have a fast connection to the main computer if that is the case.



Use <https://pcpartpicker.com/> to design your computer and price it.

Data Processing (3- 4 students)

Mike has just opened an accounting office and needs a modern AIS system for his office.

Accounting as an **information system** (AIS) is a **system** of collecting, storing and **processing** financial and **accounting data**

Look at the link below to get an idea

<https://www.investopedia.com/articles/professionaleducation/11/accounting-information-systems.asp>

You are to design a small network of 7 terminals. An arrangement of networked computers in which data processing capabilities are spread across the network.....(usually a mini or mainframe computer or a cluster of servers).

Mike does not want to spend more than \$6,000 (including peripherals and

Software: Accounting software and security software)



Use <https://pcpartpicker.com/> to design your network and price it. Makes sure you market your network so Mike will purchase it!!!!

Presentation is 20% of your grade.

Hardware Project Rubric

Project											
Includes all 10 components	1	2	3	4	5	6	7	8	9	10	/10 pts
Component Correctly Defined	1	2	3	4	5	6	7	8	9	10	/10 pts
Job of the component is accurately described	1	2	3	4	5	6	7	8	9	10	/10 pts
How this component works with the other components is accurately described	1	2	3	4	5	6	7	8	9	10	/10 pts
Abstraction between different devices that accomplish the same or similar tasks is accurately described	2	4	6	8	10	12	14	16	18	20	/20 pts
Creative Presentation	1	2	3	4	5	6	7	8	9	10	/10 pts
Resources Page - content and images	1	2	3	4	5	6	7	8	9	10	/10 pts
Class Presentation											
Presence	2	4	6	8	10	12	14	16	18	20	/20 pts
Total											

Hardware Components

Basic Components	Model	Price
1. CPU		
CPU cooler (if applicable)		
2. Motherboard		
3. RAM -memory		
4. Video -Card		
5. Hard Drive (Storage)		
6. Case		
7. Power Supply		
8. Optical Drive		
9. Monitor		
10. Keyboard / mouse		

Additional Components	Model	Price
Total Price		Total:

Start by researching the specs:

Example: Flight Simulation Operating **System**: Windows 10 / 8.1 / 8 / 7 / Vista / XP and MAC.
Graphics: Direct X compatible card with 512 MB or better. Etc.

Recommended Requirement to run	Optimize based on budget