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| **AP CSP Python with CodeX**  **Mission 6 Obj 1-7 Assignment** | | **Name:** |
| **Getting Started** | | |
| In this project you will give CodeX a beating heart. Well, a digital one anyway. **During this lesson you will complete the first two goals:** Code an animated heartbeat, use a loop to repeat forever and break out of the loop. | | |
| **Mission 6 : Heartbeat Objectives 1-7** | | |
| Complete Objective 1 *Use CodeTrek if needed.* |  | |
| Complete Objective 2 *Use CodeTrek if needed.* |  | |
| Complete Objective 3 This objective uses a lot of repetition. Click on Editor Shortcuts to learn how to use them in CodeSpace.  Many editor shortcuts will come in handy as you work in CodeSpace. Fill in the shortcut for the tasks listed. | |  |  | | --- | --- | | Task | Editor shortcut | | Copy text |  | | Paste text |  | | Undo |  | | Replace text |  | | Indent or un-indent |  | | Comment out or un-comment code |  | | |
| Complete Objective 4 Read ALL the information. Click on LOOP and read about the while loop and breaking out.  What do loops let you do?  What part of code is repeated?  What type of value is ***True***?  What type of loop is ***while True:***?  When coding: remember to delete all the extra lines of code not needed in the while True loop. |  | |
| Complete Objective 5 Read ALL the instructions. Take notes in the space provided.  How do you stop an infinite loop? |  | |
| Complete Objective 6 Read ALL the instructions. Take notes in the space provided.  How do you program a “kill switch”? |  | |
| Complete Objective 7 Read ALL the information.  Use the debugger to step through the code. Step over at least 8 times, and then press BTN-A to see the loop stop. |  | |
| Take the quiz. How did you do? Is there a concept you need to review? |  | |
| Go to **File → Save** As and rename your program ***Heart2\_functions*** | | |
| Create a function for the beating heart. You can call it **heart\_beat()**. Put the four lines of code that display an image and sleep inside the function, and call the function in the while True loop. | | |
| Change the button press for the “kill switch” from BTN\_A to BTN\_U.  Run the code and make sure there are no bugs before submitting. | | |
| Submit the assignment to the teacher. | | |