Computer Science Principles

Class 9

Class 9 Agenda

- Programming item of the day
- Programming Career Discussion
- TED talk about other programming option
- Individual Project Assignment
- Group Project Work

Programming Item

- "The first prototype flew in early 1978. Naturally unstable and made airworthy only by virtue of computerized, quadruple-redundant, fly-by-wire controls, it exhibited rapid speed loss in nose-up attitudes, a high landing speed and a high sink rate. These problems ultimately proved its undoing when Lockheed test pilot Bill Park bounced it off the ground, jamming the right gear halfway up. Unable to land or even belly in, he burned off the excess fuel and ejected at 10,000 feet over the Nevada desert. The prototype was destroyed, and Park, injured during the ejection, never flew again."

F-117A Nighthawk

F117A Article

- http://www.historynet.com/stealth-secrets-of-the-f-117-nighthawk-mar-96-aviation-history-feature.htm

- By this time the second Have Blue prototype had caught fire in midair and crashed, and the first F-117A had been retired after going inverted and backward on takeoff. Both test pilots survived. The first incident was attributed to a broken fuel line, and the second to inadvertently cross-connected pitch and yaw controls. (Normally the Nighthawk's fly-by-wire system compensated for its instability so well that when one jet lost an entire rudder at high speed, the pilot had to be informed of the fact by the chase plane, after which he landed safely.)

Programming Career Options

- Operating System/PC/Supercomputers
- Mobile/Apps
- Embedded (hardware)
- Manufacturing
- Test
- Website
- Systems
- Non-traditional (self taught/hacking)
- Management/Training

Programming Career (i.e. $$$)

- http://www.foxbusiness.com/features/2015/07/09/average-salaries-for-americans-median-salaries-for-common-jobs.html
- https://www.nerdwallet.com/blog/loans/student-loans/georgia-tech-best-value/
- http://www.payscale.com/college-salary-report/common-jobs-for-majors/computer-science
- https://collegegrad.com/careers/computer-programmers

TED Talk

- About Hacking!

What is your interest?

- Emily – None
- James – Gaming
- Kevin – None
- Ethan – Gaming
- Graham – Gaming

Individual Assignment

- Write a function that:
- Outputs/returns an integer
- Takes three integers as inputs
- Uses a while loop
- Uses a for loop
- Uses at least one if – else – end
- Has comments (#this is what this line does, etc)