

JAVA PROGRAMMING PROJECTS

One Programming Project is required. The top programs may be nominated for ComputerFest.

In addition to a running program, the student must submit documentation which includes 3 sections:

- 1) A specification /description of what the project does, including all features.
- 2) A user guide/instruction on how to operate the program and exercise each option/feature.
- 3) A discussion of how features performed and the reason any features were not included. Finally, comment on new capabilities you would like to add or extend if you had the time.

Any copyrighted material/programs/methods used must be explicitly given credit. No plagiarism!

A student may propose their own project design with the consent of the instructor

PROJECTS:

- 1) Address book (w/names, addresses, phone no, birthdates)
 - A) Capability: find /add/delete/edit entries
 - B) Plus: save/restore to file, sort, etc.
 - C) (advanced) Pictures: (jpg, png, gif)
- 2) Calculators

Pick one of the following alternatives:

 - A) Basic Calculator (+, -, x, /, memory, square root, reciprocal)
 - B) Boolean/Hex Calculator (binary, octal, hex conversions)
 - C) Financial Calculator (business calculations, i.e. loans, etc)
- 3) Puzzles
 - A) Memory Puzzle (matching colors, numbers, images, sounds)
(grid: 4X5 minimum)
 - B) Sudoku
 - C) Code Breaker (Mastermind)
 - D) Spelling (Hangman)
 - E) Mine Sweeper
 - F) Crossword, Jumble
- 4) Board games (Board GUI, Playing Pieces, Legal_Move_Check)
 - A) Chess/ Checkers/ BackGammon
 - B) 3D TicTacToe
 - C) Reversi
 - D) Connect_4
 - E) Battleship
- 5) Card games (Card, Deck, Shuffle, Dealer, Player)
 - A) Blackjack
 - B) Solitaire
- 6) Role Playing
 - A) Hamarabi
 - B) Star Trek
- 7) Video Games/ Simulation
 - A) Paddle Games: Pong, Breakout
 - B) Asteroids, Invaders
 - C) Lunar Lander(Altitude, Velocity, Fuel, Thrust)