**Example Computer Science IAs**

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| **Title** | **Description** | **Software** |
| Store check-out system / loyalty points | The product will allow customers to see how many points they have accumulated and which goods can be exchanged for them | Java + an existing database |
| Store discounts | Basic calculator to calculate shopping bill discounts | Java |
| Hair Salon Management System | A database for storing and accessing client / product details | Access (+ 1 trivial VB macro) |
| Apiculture management system | Management of the sales / products database | Java + text files |
| Real Estate agents | Estate agent management system | Java + text file |
| Dominoes | Game to stimulate interest in mathematics in the school | HTML / JavaScript / CSS / php / MySql |
| Teacher Attendance | Registers arrival and departure times | Java + MySql |
| Real Estate Project | Provides information (including maps) regarding available property | App - Swift + XCode |
| Dry Cleaners | Generation of electronic orders | Java + Xampp (Apache + MySql) |
| Apartment Management | Management of set of apartments in the city | Access + (trivial macros) |
| Doctor’s Surgery | Organization of appointment book | Java + MSql |
| Master Chess | Logic game to visit all squares of a chess board by just using the knight, | JavaScript + HTML + WampServer |
| Book register | Creating an iPhone app for a reading booklist | Swift + xCode + xml files |
| Password Manager | Saves passwords in an encrypted from to file | Java + MySsl |
| Ultimate RPG | RPG game for relaxing stressed-out students | Java |
| Customer Student Calculator | Mobile calculator app with custom-made functions | Java + Android Studio |
| Test Maker | Online evaluator using multiple-choice tests taken by students at their own leisure. | Php + HTML5 + CSS3 + phpMyAdmin + MySQL + xAMPP |
| Valency Game | “Ping-pong” type game to simulate filling of valency shells | “Processing” language |
| Adventure Game | Text based adventure game for learning programming syntax | Python |
| SATs score management | Provide stats including progress graphs to show students’ progress for their practice SAT tests | Java |
| Calculus Tester | Program to test students’ ability at calculus | Java + Window Maker |
| Blackjack Maths stimulus game | Game that students can play against the computer | Visual Basic + GUI Builder |
| Matchmaker | Matches up people depending upon their interests | Java |
| Kiosk Nutrition Provider | Gives nutritional details about combination of foods in the kiosk | Java |
| IB Pseudocode interpreter | Program to help students learn IB Pseudocode – inputs pseudocode in 1 window and attempts to execute it in another | Python |
| Transportation Optimization Problem | Planning the optimal site of a new airport that would link with existing rail network in order to minimize transport costs | C++ |
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