**Application Name: Student App (name not final)**

**Group Members: Hajra and Kara**

**Description**

Our idea is to create an app designed for students based off of their school lives and academics. It will offer crucial and valuable information that students genuinely are interested in such as a student overview (student ID, GPA, full name, etc.), schedules and time tables, a calendar, social/school updates, an agenda and more. All the options will be available through a menu with graphical interface and user interactions. The key/main features available are:

* My Data
* My Planner
* My Calculator
* My School
* My Calendar
* More Info (social media and contact info)
* Current date and time
* A log in system

To explain further, the app will run by first displaying a logo/graphic. After a short wait, a user log in section will pop up. The log in username and passwords will be based off assumptions from a given text file. Once they have successfully logged in, a new window will appear (the menu) with multiple buttons offering all the features the app has to offer! A click of each button will open a new window of the same dimension (to appear as it would on a phone) and include a tool-type bar at the top with an exit button. The student can explore the app however they please.

**Programming Concepts**

Must include – no explanation required:

* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngModules`
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngLists
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngStrings
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngGraphics
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngClasses/Objects
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngOO concepts: Encapsulation/Polymorphism

Optional (include at least 3 of these) – explanation required:

* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].png2D lists – used to determine required or desired data for which ever option is being run. (e.g. traverse through a student object to determine their specific course codes)
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngFiles – used for storing student/school/social data for multiple app purposes (e.g. confirming student sign-in info, student info in general, school messages, saving posts from the user and what they entered into their agenda, etc.)
* Recursion
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngLinear/Binary Search Algorithms – for converting and collecting data
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngSorting Algorithms – used to quickly collect and sort through info similar to binary and search algorithms
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngLists of Objects – (students objects, buttons will be objects, etc.)
* Inheritance

**Research**

* Reference from modules online and related functions
  + Calendar module, how to implement current date and time, and creating a graphic animation for the loading time
  + We have considered using pygame for the loading animation

**Deadlines**

* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].png**Requirements Document Due: Dec 11th**
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngC:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].png**Development Due: Dec 18th**
* **Implementation – Ready for Testing Due: Jan 19th**
* C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].pngC:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].png**Testing In Class: Jan 20th**
* **Final Submission Due: Jan 22nd**

C:\Users\Krista\AppData\Local\Microsoft\Windows\INetCache\IE\IEWJLOJZ\Check_mark_23x20_02.svg[1].png**Teacher Approval**

* **Approved by Mrs. Ghanekar Date:** 12/10/15