he core functionality of the project will be primarily determined by your proposal. Most projects are games, or 3D environment simulations. As such, it is expected that these will involve basic geometric rendering and transformations (i.e., drawing stuff in the correct position/orientation in space). This includes basic game functionality, physics, and so on, as appropriate. This will account for 50% of the implementation grade. The remaining 40% of the implementation grade will be for adding additional advanced graphics features. Each addition is worth an amount shown in brackets (maximum 40%). Possible features include: - lighting [5%] - textures [10%] - alpha blending [5%] - particle systems (using your particle assignment) [5%] - animated characters (based on tutorials) [5%] - picking (click on a 3D object in the scene to select it) [10%] - non-geometric primitives (bitmaps, pixel maps) [10%] •e.g., bill-boarding •e.g., draw a user interface around the main game screen area - advanced camera control (e.g., quaternion-based camera) [10%]- shaders [10%] - your own idea here [5 – 10% depending on complexity, ask in advance if unsure] Note that some of these features may require some independent research, as they were not discussed in class. You should include documentation with your project, indicating which of these you implemented. Project implementation submission: Projects should be submitted to SVN trunk in the project folder by the date specified above. You should include your source code. You should include a document detailing instructions on how to run and compile your program, including a listing of the program commands. This document should also detail which features you implemented from the list above. You may use Doxygen for code documentation. Please follow standard compiling procedure using make and g++ as outlined in course.

School Runner

The game that puts a university student’s life into the virtual world!

Group Members, Student Numbers:

Karim Ramez,

Ben Miller,

Tori Graff,

Emily Ashworth, 001402976

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Game Description:

There are a lot of games out there these days and you’ll find many of them take place in far off lands or depict great adventures allowing people, especially university students, to lose themselves in a virtual reality not even remotely related to their own lives. We, the founders of School Runner, have endeavoured to be different from such fantasies. Instead we take the university student and put them inside the game. That’s right you control the student as you run around campus desperately trying to collect what did we decide on? and trying to meet your deadlines. Unlike real life though, the game can be quite satisfying because all your goals can be met and it is possible to win the game. Come explore several levels where you try and avoid your TAs and professors and sprint to meet that deadline, where there’s danger around every corner and all kinds of aids to help you win. Come play a game that is not the game of a lifetime, but the game that is your lifetime, School Runner! Not available in the App Store.

Compilation and Running Instructions:

Games Rules and Instructions:

Use your arrow keys on your keyboard to move the student around obstacles such as profs and TAs and to try and pick up extra time to complete your assignment. When time runs out the game is over and a calculation will be made between your score and the amount of time you ran to calculate your GPA. Go for the Dean’s List man! The longer you run and the higher your score is the better your GPA will be!

Additional Features:

* Lighting:
* Music:
* Textures:
* Picking:
* Alpha Blending:
* Animated Character: