Controls:

Duck:
w – move canoe forward
s – move canoe backward
a – turn canoe left
d – turn canoe right
space - jump
shift – speedboost

Options:
F2 – Show Frametime
F3 – Wireframe
F6 – Free Camera
F7 – Toggle Shadow

Camera:
mouse – look
mouse wheel - zoom
arrow keys – move camera
Escape – close game

Gameplay:
Move the duck to collect the yellow rubber duckies within 90 sec, use jump to get on the boxes. When you are on a box you cannot move, only jump. But you are able to move while jumping.

Development Status:
We have a small problem with the draw distance of our shadow. There is a diagonal line/plane where it stops drawing shadows and we could not find the error. This line/plane affects the corner left of the Batmanbuddha (assuming you face him). The Shadow Mapping can be seen when the canoe moves near the boxes. The light position is (50,10,50), which is our only light source (note that this light is not aligned with the "sun" of the cube map). Our Batmanbuddha is reflecting the Environment. It can be found at (0,0,-70). For the Refraction turn the back of the canoe towards the Batmanbuddha and you will see the ground texture ("red" tiles) below the canoe. Alternatively use the free camera to move near the Buddha (for Environment Mapping), below the water (for Shadow Mapping) or in front of the canoe (Animation). The water reflection is dependent on the third-person camera of the canoe, thus the reflection is off when using the free camera. The collision detection, which uses bounding boxes, was written by us. Which allows the canoe to jump on our platforms, to collect the ducks and prevents the canoe from leaving the pool or falling through the water. You can use the "settings.conf"-file to change the resolution and toggle fullscreen mode.

Requirements:
Gameplay: Jumping on boxes to reach a duck.
Effects: Fresnel Water with Reflection and Refraction, Shadow Maps, Environment Mapping.
Complex Object: Rubber Duck, Canoe (+ Driver), Batmanbuddha.
Animated Objects: Driver arms with paddle.
View-Frustum-Culling: -
Transparency: Water, Text.

Libraries:
GLEW, GLFW, SOIL, ASSIMP, GLM, FREETYPE

Tutorials used:
http://www.learnopengl.com/ - used for the basics, Environment Mapping, Shadow Mapping, Text Rendering.
http://http.developer.nvidia.com/GPUGems2/gpugems2_chapter19.html – used for water

Tools used:
Blender