RUTGERS

Unity: Animation

PART 1:

In this part you should use Mecanim Animation System to create some animated agents. These agents should be able to walk, run, and jump (among other exciting thing you can make them do).

Useful materials and readings:

1. Mecanim documentation: http://docs.unity3d.com/Manual/AnimationOverview.html
2. Mecanim example projects on asset store:
    a. https://www.assetstore.unity3d.com/#/content/5328
    b. https://www.assetstore.unity3d.com/#/content/7673

Characters:

1. Male : https://www.assetstore.unity3d.com/en/#!/content/124
2. Female : https://www.assetstore.unity3d.com/en/#!/content/127
3. Robot : https://www.assetstore.unity3d.com/en/#!/content/4696
4. Soldier : https://www.assetstore.unity3d.com/en/#!/content/122

Animation data for Mecanim:

https://www.assetstore.unity3d.com/#/content/5330
(look at the asset store for more characters and assets)

Follow these instructions and create your prefab of an animated agent:

1. Create an animated human character using Mecanim. Take a humanoid character, import animation data onto the humanoid (you can get the animations from the link above), and create a simple animation state machine to have him walk, run, jump.
2. Create a simple controller script where a player can control the character using arrow keys. Use run modifiers (e.g., shift key) and SPACE to jump.

3. Create a prefab of the animated character.
4. Set up a “third person” camera view which follows the character and is located behind and just above the shoulder (RPG style).

PART 1 Deliverable: A web playable demo where you can control an animated character using the keyboard. Third person camera view is required.

PART 2: Combine Animation & Navigation [5 points]

In this part you must combine part 1 and part 2 together, so that you can navigate crowds of your animated human characters with meaningful animation during each action in your crowd simulator.

Follow these instructions:

1. Integrate your prefab(created in part 2) into your crowd simulator (part 1) to create a crowd of directable animated characters.
2. Characters should jump when navigating off mesh links.
3. You should be able to set the desired speed of the character(s) and they should transition from running/walking (e.g. by multiple clicks on a target.)
4. **Extra Credit:** Think of other off mesh links you could implement and their associated behaviors. Implement several interesting offlink meshes, and create animation behaviors in your prefab for that movement (e.g. fly, crouch, swim, etc.). Add it to your simulator.

PART 2 Deliverable: A web playable demo of an interactive crowd of animated characters.

SUBMISSION:

Submit the following in Sakai for grading:

1. Your Unity project in a zip file which contains the Assets/ folder and includes all your C# scripts.
2. Offline builds of your 2 demos (part1, part2), including the html file of your project and all required run files. Remember, it is your responsibility to make sure your offline version works fine when downloaded, so check several times before submission. If your games cannot be played, you get 0 (no warning or announcement will be given this time!).

3. Brief documentation about your project. Clearly describe how your project works and your extra credit attempts. This is your guide for the user. For unmentioned/unclear aspects of your project, you won't get any mark. So please write your documentation brief, clear, and complete.
4. **Extra credit:** Integrate the scenes into one single demo with a game menu allowing to navigate between different parts
5. Video demonstration of various functionality

NOTE: Extra credit will be given at the discretion of the instructor.

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Good Luck Everyone!