Comp Photography
Assignment #9
High Dynamic Range Imaging

Ngoc (Amy) Tran
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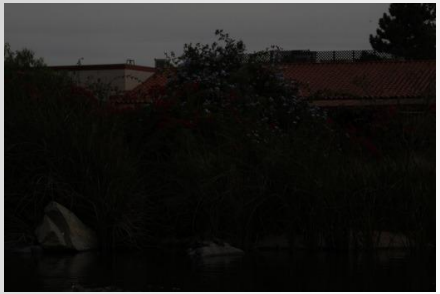
Output HDR image from the input provided in this assignment

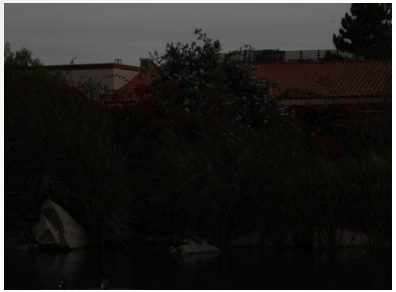
Output HDR image from the input provided from professor. No Tone Mapping was performed on the resulted image. (unchange HDR output)

HDR output with ToneMapped using Photomatix

Input of HDR images



F-25, Shutter Speed: 1/160,
ISO:100



F-25, Shutter Speed: 1/125,
ISO:100

F-25, Shutter Speed: 1/180,
ISO: 100

F-25, Shutter Speed: 1/60,
ISO: 100

F-25, Shutter Speed: 1/40,
ISO:100

F-25m Shutter Speed: 1/15,
ISO: 100

F-25, Shutter Speed: 1/10
ISO: 100

F-25, Shutter Speed: 1/5
ISO: 100

Output of HDR image

output of HDR image- Original result, No tone mapping

* I took the HDR images at Lake Webb Park- Rancho Bernardo, San Diego. The images taken at the same aperture F-25, and different exposure times allow for the generation of a High Dynamic Range Image
* NO tone mapping was performed on this result output image.

Output of HDR Image with Tone Mapping

output of HDR image with ToneMapped using Photomatix

- The result using Photomatix tone mapped.

Notes

- In my case, I have a set of HDR images with 8 images taken at different exposures time (from 1/160, 1/125, 1/80, 1/60, 1/40, 1/15, 1/10, and 1/5)
- This assignment said we need to use at least 5 images at different exposure and can use more image to test as we like. However in the provided test code file “assignment9_test.py” at line #158, it’s only supported 6 different exposures time as showed below on the code.

```
exposure_times = np.float64([1/160.0, 1/125.0, 1/80.0, 1/60.0, 1/40.0,
                             1/15.0])
```

- I have 8 test images. So, I modified the “assignment9_test.py” to add addition exposure times 1/10, and 1/5 to the support list in order to test my HDR set of 8 images at different exposures time.

```
exposure_times = np.float64([1/160.0, 1/125.0, 1/80.0, 1/60.0, 1/40.0,
                             1/15.0, 1/10.0, 1/5.0])
```