Some specific instructions for completing the table, which can be found below :

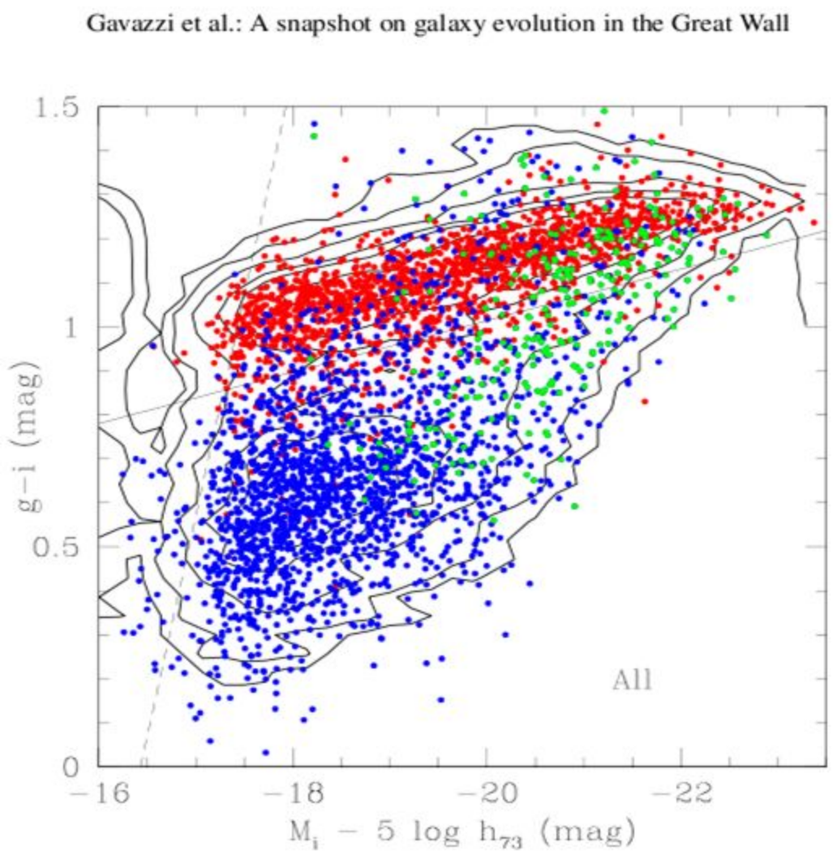
Name : galaxies without major catalogue names have HI detections. The SDSS/NED links will search the position of the HI, and it's up to you to identify the galaxy associated with the HI (based on its position, velocity, and morphology). Then you can use NED to find the common name of the galaxy in a major catalogue : look at the "Cross identifications" section. If the galaxy has a VCC name, use that in preference to anything else. If it does not, prefer names as follows : NGC > UGC > AGC > CGCG.
One galaxy does not have any optical counterpart at all : state this in the name field and leave all the other optical parameters blank.
One galaxy has a visible counterpart which is not listed in any major catalogues. Complete the photometry of this object but leave its name blank.

Morphology : it is sufficient to describe the galaxy as a spiral, irregular, peculiar, lenticular, elliptical, or dwarf elliptical. If you see any extensions from the main disc, e.g. stellar streams, include these in your photometry and note them in the comments.

Apparent magnitudes : correct these for extinction. Give answers to 2 d.p (same for absolute magnitudes and *g-i*).

Distance : use the HI velocity ("Width maximizer : 50% line centre" parameter) in combination with Hubble's Law, assuming H_0 = 71 km/s/Mpc. However, if the galaxy is listed in the VCC and has v < 3,000 km/s, assume its distance is 17 Mpc (recall that Hubble's Law is invalid in clusters). For the galaxies without HI, assume 17 Mpc.
The velocity resolution of the survey is 5 km/s so there's no need to be too precise. Round the distance to the nearest Mpc.

CMD position : use the figure below to determine if the galaxy is in the blue cloud, red sequence, or transition region. Use M_i for the x-axis - there is no need for the h-correction used in the figure. If the galaxy is so faint that it does not appear in the figure, leave this cell blank.



M_{HI} : use the equation given in the second lecture, combined with the HI data tables provided. Give the answer to 1 d.p.

HI deficiency : use the morphology-independent equation given in the second lecture. Give answers to 1 d.p. For the comments section, recall that -0.4 < *def* < +0.4 is normal, +0.4 - ~+0.6 is moderately deficient, and def > +0.6 is strongly deficient.

Comments : a brief (1 or two sentences) description of the galaxy and anything unusual about it. If you think there's nothing unusual, say so ! If you think something is affecting the galaxy, suggest what you think is happening any why.

By all means use NED for guidance on the various parameters of the objects, but don't rely on them. NED's data comes from a wide variety of sources and will certainly be somewhat different to yours. Use it as a sanity check, not a substitute for your own measurements.

Galaxy Name	Morphology	m_g	m_i	Distance / Mpc	M_g	M_i	*g-i*	CMD position ?	Diameter / kpc	M_{HI}	HI_{def}	Comments ?
Galaxy_01 SDSS NED												
Galaxy_02 SDSS NED												
Galaxy_03 SDSS NED												
Galaxy_04 SDSS NED												
Galaxy_05 SDSS NED												
Galaxy_06 SDSS NED												
Galaxy_07 SDSS NED												
Galaxy_08 SDSS NED												
Galaxy_09 SDSS NED												
Galaxy_10 SDSS NED												
Galaxy_11 SDSS NED												
Galaxy_12 SDSS NED												

Galaxy_13 SDSS NED												
Galaxy_14 SDSS NED												
Galaxy_15 SDSS NED												
Galaxy_16 SDSS NED												
Galaxy_17 SDSS NED												
Galaxy_18 SDSS NED												
Galaxy_19 SDSS NED												
Galaxy_20 SDSS NED												
VCC 1120 SDSS NED												
VCC 1514 SDSS NED												
VCC 1649 SDSS NED												
VCC 2000 SDSS NED												
VCC 2095 SDSS NED												