

Name: Zixian Gui
Email: gui.zi@northeastern.edu

Homework for Module 11

Common coins in the United States are denominated as 5, 10, and 25 cents. Create a "dynamic" grid showing the combination of the **fewest** coins to create the values of change: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 cents.

Assume you have enough coins of any denomination to make the combinations you need.

A sample table is included, but feel free to make your own in some other tool (like Excel or a text editor) and upload a .txt or .pdf of your solution to your github folder.

The 3 coins denominations should represent the rows of your table, and the 10 change values should represent the columns. Fill the table in row by row as we did with the guitar/stereo/laptop example – the first 3 elements of the first row have been filled in below (using N for 5 cent coin, D for 10 cent coin, and Q for 25 cent coin).

Name	Value	5	10	15	20	25	30	35	40	45	50
N	5	1N	2N	3N	4N	5N	6N	7N	8N	9N	10N
D	10	1N	1D	1N+1D	2D	1N+2D	3D	1N+3D	4D	1N+4D	5D
Q	25	1N	1D	1N+1D	2D	1Q	1N+1Q	1D+1Q	1N+1D+1Q	2D+1Q	2Q