In this problem we have created a fuzzy logic for a washing machine with 2 input and one output.

- Input 1: the first input is weight of dirty clothes with 7 member in its membership function until 16 kilograms. (members: VL, L, LM, M, HM, H, VH)
- Input 2: the second input is dirtiness of clothes also with 7 member in its membership function from 0 to 100. (members: VL, L, LM, M, HM, H, VH)
- Output: output will be RPM with 13 member in its membership function from 0 to 20000 round per minute. (members: VVVVL, VVVL, VVL, VL, L, LM, M, HM, H, VH, VVH, VVVH, VVVVH)

Rule table would be:

	VL	**L**	**LM**	**M**	**HM**	**H**	**VH**	**weight**
VL	VVVVL	VVVL	VVL	VL	L	LM	M	
L	VVVL	VVL	VL	L	LM	M	HM	
LM	VVL	VL	L	LM	M	HM	H	
M	VL	L	LM	M	HM	H	VH	
HM	L	LM	M	HM	H	VH	VVH	
H	LM	M	HM	H	VH	VVH	VVVH	
VH	M	HM	H	VH	VVH	VVVH	VVVVH	
dirtiness								
we think about dirtiness more so if it is more dirty we need more Engine RPM								

In order to see almost all the possible output we would cover all the input 1 domain with 0.5 kilos steps and all the input 2 domain with 1 degree of dirtiness steps.

You can see output plot below: