

HOMEWORK – 2

**PROBLEM:** A student of Aeronautics wants to write a fortran program that he will use for processing data of aircraft stored in a file, named "aircraft.dat". Each record in this file consist of a type name, year of manufacture and weight of an aircraft, as can be seen in Table 1. The data file contains only ten records since it is just for testing the program. The program must have the following features:

Read the data in the file and upon selecting one of the options "t", "y", and "w" save the data

- sorted on type name in increasing order in a new file "sorted\_t.dat",
- sorted on year of manufacture in increasing order in a new file "sorted\_y.dat",
- sorted on type name in increasing order in a new file "sorted\_w.dat", respectively.

The file to be created for the case where sorting on year is chosen is shown in Table 2. In the output file data must be aligned in columns.

**Table 1.** Content of input file "aircraft.dat".

Aircraft	Year manufactured	Weight(kg)
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Helicopter2	1984	6500
Airship	1935	215000
Airplane4	1970	170000
Helicopter1	1982	6000
Airplane3	1990	25000
Airplane1	1980	33000
Glider	1993	350
Seaplane	1960	11000
Balloon	1997	2000
Airplane2	1950	10000

**Table 2.** Contents of the output file "sorted\_y.dat".

Aircraft	Year manufactured	Weight(kg)
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Airship	1935	215000
Airplane2	1950	10000
Seaplane	1960	11000
Airplane4	1970	170000
Airplane1	1980	33000
Helicopter1	1982	6000
Helicopter2	1984	6500
Airplane3	1990	25000
Glider	1993	350
Balloon	1997	2000