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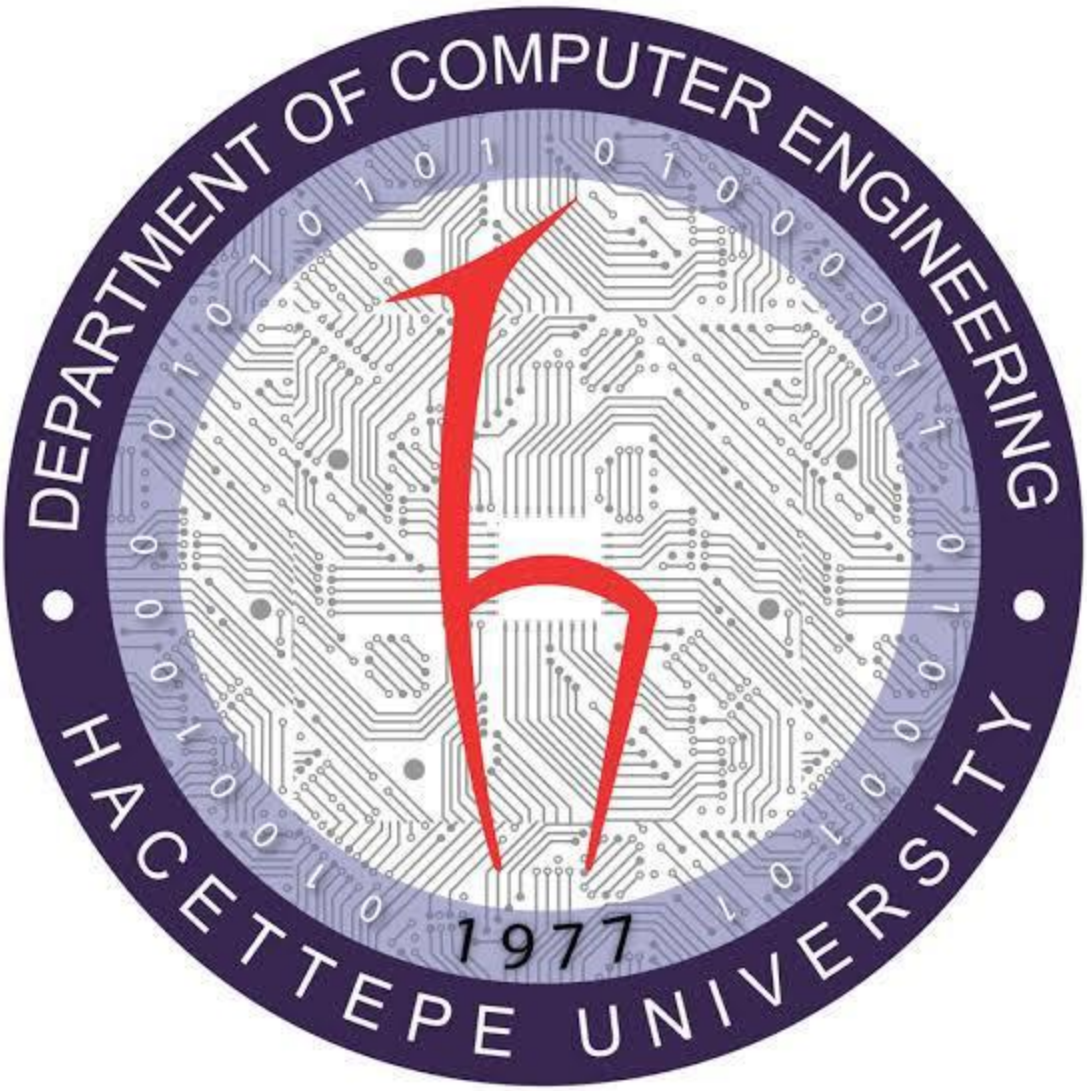
ASSIGNMENT 2 – REPORT



Program Definition:

- **This program is calculating the best chromosome in a population.**
- **There is 4 text files given to us for read and work on it which includes various numbers.**
- **My program takes 3 argument in total, first argument is PROB_SIZE and second argument is POP_SIZE and the third one is MAX_GEN.**
- **When my program start to execute this population file, program will read all chromosomes first and work on these chromosomes with another text files.**

Method:

- **My code doing some split operation on chromosomes for using into the other functions and returns link list's head in ascending order.**

Functions:

- **addnode_fitness(): This function takes 3 parameters and creates a link list with structs operation with parameters and returns first chromosome.**
- **bubbleSort(): This function takes parameter which is the head of linked list and calls swap() function for swapping link list.**
- **new_fitnesses(): This funciton takes 2 parameters and calculating new fitnesses after xover and mutate operation.**
- **xover_their_genes(): This function takes 5 parameters for doing xover and mutate operations and returns head of the link list.**
- **selection_funct(): This function takes 4 parameters for splitting selection text and calls xover_their_genes() function for doing xover and mutate operations.**
- **PrintingList(): This function takes 2 parameters for printing list in ascending order and returns head of the link list.**
- **FitnessCalculator(): This function takes parameter for calculating fitness' for each chromosome.**
- **best_chro(): This function takes 3 parameters and its work is changing the best chromosome in a population.**
- **swap(): This function takes 2 parameters for swapping linked in ascending order.**
- **main(): In my main function, my program reads the text files and split it line by line in an order and calls other functions in an order.**