



Daffodil International University
Department of Software Engineering
Faculty of Science & Information Technology
Lab Final Examination, Fall 2024

Course Code: SE215 Course Title: Algorithm Analysis and Design Lab
Sections & Teachers: FE

Time: 1:15 Hr

Set: A

Answer ALL Questions

1. Write a program in your preferred programming language to implement the bubble Sort algorithm.

Submission Instructions:

- a) Create a file and name it with your student ID (for example : 201-35-110.C).
- b) Implement the algorithm in your preferred language.
- c) Provide your name as comments in the code. (for example: //Imtiaz haque)
- d) Print your ID and name in the output window (for example: printf("ID=201-35-110 and name= Imtiaz haque");)
- e) Copy the code and paste it in the "Lab Final answer script". Moreover, take screenshots of every step after running the code and make a document "Lab Final answer script".

2. Given a list of coin denominations and a target amount, determine the minimum number of coins required to make up that amount.

Submission Instructions:

- a) Create a file and name it with your student ID (for example : 201-35-110.C).
- b) Implement the algorithm in your preferred language.
- c) Provide your name as comments in the code. (for example: //Imtiaz haque)
- d) Print your ID and name in the output window (for example: printf("ID=201-35-110 and name= Imtiaz haque");)
- e) Copy the code and paste it in the "Lab Final answer script". Moreover, take screenshots of every step after running the code and make a document "Lab Final answer script".

Finally Submit "Lab Final answer script" on BLC.



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Set: B

Answer ALL Questions

1. Write a program in your preferred programming language to implement the selection Sort algorithm.

Submission Instructions:

- f) Create a file and name it with your student ID (for example : 201-35-110.C).
- g) Implement the algorithm in your preferred language.
- h) Provide your name as comments in the code. (for example: //Imtiaz haque)
- i) Print your ID and name in the output window (for example: printf("ID=201-35-110 and name= Imtiaz haque");)
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2. Given a set of items, each with a weight and a value, determine the maximum value that can be obtained by selecting a subset of the items that fit into a knapsack of limited capacity. Note that a fraction of the items can be considered.

Submission Instructions:

- f) Create a file and name it with your student ID (for example : 201-35-110.C).
- g) Implement the algorithm in your preferred language.
- h) Provide your name as comments in the code. (for example: //Imtiaz haque)
- i) Print your ID and name in the output window (for example: printf("ID=201-35-110 and name= Imtiaz haque");)
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Time: 1:15 Hr

Set: C

Answer ALL Questions

1. Write a program in your preferred programming language to implement the insertion Sort algorithm.

Submission Instructions:

- k) Create a file and name it with your student ID (for example : 201-35-110.C).
- l) Implement the algorithm in your preferred language.
- m) Provide your name as comments in the code. (for example: //Imtiaz haque)
- n) Print your ID and name in the output window (for example: printf("ID=201-35-110 and name= Imtiaz haque");)
- o) Copy the code and paste it in the "Lab Final answer script". Moreover, take screenshots of every step after running the code and make a document "Lab Final answer script".

2. Given a list of coin denominations and a target amount, determine the number of ways to make up that amount.

Submission Instructions:

- k) Create a file and name it with your student ID (for example : 201-35-110.C).
- l) Implement the algorithm in your preferred language.
- m) Provide your name as comments in the code. (for example: //Imtiaz haque)
- n) Print your ID and name in the output window (for example: printf("ID=201-35-110 and name= Imtiaz haque");)
- o) Copy the code and paste it in the "Lab Final answer script". Moreover, take screenshots of every step after running the code and make a document "Lab Final answer script".

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