

**Mawlana Bhashani Science and Technology University**

**Department of Information and Communication Technology**

**Assignment: 01**

**Assignment Name:** Range of All Data type Works in my Device

**Device info:**

System type: 64-bit operating system

Window Edition: Windows 11 Home Single Language

Code Blocks Version: Code::Blocks 20.03

|  |  |
| --- | --- |
| **Submitted By** | **Submitted To** |
| Name: Kuldip Saha Mugdha | Bikash Kumar Paul |
| ID: IT22018 | Assistant Professor |
| 1st Year 2nd Semester  Session: 2021-2022 | DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY  **MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY** |
|  |  |

Date: 14-08-2023

1. Integer

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Type** | **Format Specifier** | **Storage Size** | **Range** |
| int | %d | 4 byte | -2,147,483,648 to 2,147,483,647 |
| -2,147,483,648 to 2,147,483,647 |

|  |  |
| --- | --- |
| **Code** | **INPUT/OUTPUT** |
| #include<stdio.h>  int main(){  int Kuldip,Mugdha;  while(scanf("%d%d",&Kuldip,&Mugdha)==2){  printf("Output:%d\n%d\n",Kuldip,Mugdha);  }  return 0;  } |  |

2. Long Integer

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Type** | **Format Specifier** | **Storage Size** | **Range** |
| long int | %ld | 4 byte | -2,147,483,648 to 2,147,483,647 |
| -2,147,483,648 to 2,147,483,647 |

|  |  |
| --- | --- |
| **Code** | **INPUT/OUTPUT** |
| #include<stdio.h>  int main(){  long int Kuldip,Mugdha;  while(scanf("%ld%ld",&Kuldip,&Mugdha)==2){  printf("Output:%ld\n%ld\n",Kuldip,Mugdha);  }  return 0;  } |  |

3. Long Long Integer

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Type** | **Format Specifier** | **Storage Size** | **Range** |
| long long int | %lld | 8 byte | -9223372036854775808 to 9223372036854775807 |
| -9223372036854775808 to 9223372036854775807 |

|  |  |
| --- | --- |
| **Code** | **INPUT/OUTPUT** |
| #include<stdio.h>  int main(){  long long int Kuldip,Mugdha;  while(scanf("%lld%lld",&Kuldip,&Mugdha)==2){  printf("Output:%lld\n%lld\n",Kuldip,Mugdha);  }  return 0;  } |  |

4. Float

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Type** | **Format Specifier** | **Storage Size** | **Range** |
| float | %f | 4 byte | -2,147,483,648 to 2,147,483,647 |
|  |

|  |  |
| --- | --- |
| **Code** | **INPUT/OUTPUT** |
| #include<stdio.h>  int main(){  float Kuldip,Mugdha;  while(scanf("%f%f",&Kuldip,&Mugdha)==2){  printf("Output:%f\n%f\n",Kuldip,Mugdha);  }  return 0;  } |  |

5. Double

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| double | %lf | 8 byte | 1.7E-308 to 1.7E+308 |
|  |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  double Kuldip,Mugdha;  while(scanf("%lf%lf", &Kuldip, &Mugdha) == 2){  printf("%lf\n %lf\n", Sabbir, Ahamad);  }  return 0;  } |  |

6. Char

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| char | %c | 1 byte | -128 to 127 |
| -128 to 127 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main() {  int Kuldip,Mugdha;  while(scanf("%d%d",&Kuldip,&Mugdha)==2){  printf("Kuldip=%c,%d to Mugdha=%c,%d\n",Kuldip,Kuldip,Mugdha,Mugdha);  }  return 0;  } |  |

7. Long Double

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| long double | %Lf | 16 byte | 3.4E-4932 to 3.4E+4932 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  long double Kuldip,Mugdha;  while(scanf("%Lf%Lf", &Kuldip, &Mugdha) == 2){  printf("%Lf\n%Lf\n", Kuldip,Mugdha);  }  return 0;  } |  |

8. Unsigned int

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| unsigned int | %u | 4 byte | 0 to 4294967295 |
| 0 to 4294967295 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  unsigned int Kuldip,Mugdha;  while(scanf("%u%u", &Kuldip, &Mugdha) == 2){  printf("Output:%u\n%u\n",Kuldip, Mugdha);  }  return 0;  } |  |

9. Unsigned long int

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| unsigned long int | %lu | 4 byte | 0 to 4294967295 |
| 0 to 4294967295 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  unsigned long int Kuldip,Mugdha;  while(scanf("%lu%lu", &Kuldip, &Mugdha) == 2){  printf("Output:%lu\n%lu\n", Kuldip, Mugdha);  }  return 0;  } |  |

10. Unsigned long long int

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| unsigned long long int | %llu | 8 byte | 0 to 18446744073709551615 |
| 0 to 18446744073709551615 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  unsigned long long int Kuldip,Mugdha;  while(scanf("%llu%llu", &Kuldip, &Mugdha) == 2){  printf("Output%llu\n%llu\n", Kuldip, Mugdha);  }  return 0;  } |  |

11. Short int

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| short int | %hd | 2 byte | -32768 to 32767 |
| -32768 to 32767 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  short int Kuldip,Mugdha;  while(scanf("%hd%hd", &Kuldip, &Mugdha) == 2){  printf("Output:%hd\n%hd\n",Kuldip,Mugdha);  }  return 0;  } |  |

12. Unsigned short int

|  |  |  |  |
| --- | --- | --- | --- |
| **Data type** | **Format Specifier** | **Storage Size** | **Range** |
| unsigned short int | %hu | 4 byte | 0 to 65535 |
| 0 to 65535 |

|  |  |
| --- | --- |
| **Code** | **Input/Output** |
| #include <stdio.h>  int main()  {  unsigned short int Kuldip,Mugdha;  while(scanf("%hu%hu", &Kuldip, &Mugdha) == 2){  printf("Output%hu\n%hu\n",Kuldip, Mugdha);  }  return 0;  } |  |