****

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assignment No:** | 3 | **Mid** | | **Final** |
| **Course Title & Code:** | Programming Fundamentals (LAB) | | | |
| **Submitted By:** | Muhammad khursheed | | | |
| **Registration No:** | 2024F-mulug- 1272 | | | |
| **Semster/Class/Section:** | BSCS(B)1st semester | | | |
| **Submitted To:** | Muhammad Daniyal | | | |
| **Due Date: 05-12-2024** | **Outline** | | **Hard Copy** | |
|  | |  | |
| **Student Signature:** |  | | | |

**Note: \*Please avoide cutting/ overwriting in any of the above fields.**

**\*Complete the Task on standard A4 size papers/assignment pages.**

**\*For Instructor’s use only.**

|  |  |
| --- | --- |
| **Total Marks:** |  |
| **Obtaind Marks:** |  |
| **Signatures:** |  |

**Faculty of CS/IT,**

**Minahaj University Lahore**

**Programme -1**

**//program no 1**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int num;**

**cout(<<"Enter a number" <<);**

**cin>>num;**

**if(num>0){**

**cout ("number is positive");**

**}**

**else if (number<0){**

**cout ("number is negative");**

**}**

**else{**

**cout ("number is zero");**

**}**

**return 0;**

**}**

**Programme -2**

**//program no 2**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int n,r;**

**cout(<<"Enter two number" <<);**

**cin>>n,r>>;**

**if(num%2==0){**

**cout ("number is even");**

**}**

**else{**

**cout ("number is odd");**

**}**

**return 0;**

**}**

**Programme-3**

**program no 3**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int a,b,c;**

**cout(<<"Enter three number" <<);**

**cin>>a>>b>>c>>;**

**if(a>=b&& a>=c){**

**if(b>=c){**

**cout ("largest number is a"); }**

**{**

**cout ("second largest number is b");}**

**{**

**cout("third largest number is c");}**

**}**

**else{**

**cout ("number is equal");**

**}**

**return 0;**

**}**

**Programme – 4**

**//program no 4**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int num;**

**cout(<<"Enter the number" <<);**

**cin>>number>>;**

**if(num>=90){**

**cout ("grade A"); }**

**else if (num>=80){**

**cout ("grade B");}**

**else if (num>=70){**

**cout("grade C");}**

**else if (num>=60){**

**cout ("grade D");}**

**else{**

**cout ("Fail");**

**}**

**return 0;**

**}**

**Programme -5**

**//program no 5**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int y;**

**cout(<<"Enter the year" <<);**

**cin>>year>>;**

**if(y%4==0)**

**{**

**cout ("leap year"); }**

**else{**

**cout ("Not leap year");**

**}**

**return 0;**

**}**

**Programme -6**

**//program no 6**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int ch;**

**cout<<"Enter a character" <<;**

**cin>>ch>>;**

**if(ch==a,e,I,o,u)**

**{**

**cout "character is vowel"; }**

**else{**

**cout "Character is constant";**

**}**

**return 0;**

**}**

**Programme-7**

**//program no 7**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int units;**

**float bill;**

**cout<<"Enter the number of units" <<;**

**cin>>units>>;**

**if(units<=100){**

**cout <<"bill=units\*5.0"<<;**

**{**

**else if (units<=300){**

**cout<< "bill=100+5.0+(units-100)\*7.0"<<; }**

**else{**

**cout<< "100\*5.0+200\*7.0+(units-300)\*10.0"<<;**

**}**

**cout<<"total bill:"<<;**

**return 0;**

**}**

**Programme-8**

**//program no 8**

**# include <iostream >**

**using namespace std;**

**int main (){**

**int num;**

**cout<<"Enter a number " <<;**

**cin>>num>>;**

**if(num%3==0&&num%5==0){**

**cout <<"num is multiple of both 3 and 5"<<;}**

**else{**

**cout<< "num is not multiple of both 3 and 5 "<<;}**

**}**

**return 0;**

**}**

**[rogramme-9**

**//program no 9**

**#include <iostream>**

**using namespace std;**

**int main() {**

**char ch;**

**cout << "Enter a character: ";**

**cin >> ch;**

**if ((ch >= 'A') && (ch <= 'Z')) {**

**cout << c " ch is an uppercase letter." << ;**

**} else if (ch >= 'a') && (ch <= 'z') {**

**cout << "ch is a lowercase letter." << endl;**

**} else if (ch >= '0') && (ch <= '9'){**

**cout << " ch is a digit." << endl;**

**} else {**

**cout << "char is a special symbol." << endl;**

**}**

**return 0;**

**}**

**Programme-10**

**//program no 10**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int age;**

**cout << "Enter your age: ";**

**cin >> age;**

**if (age >= 18) {**

**cout << "You are eligible to vote." << endl;**

**} else {**

**cout << "You are not eligible to vote." << endl;**

**}**

**return 0;**

**}**

**Programme-11**

**//program no 11**

**#include <iostream>**

**using namespace std;**

**int main(){**

**for (int i = 1; i <= 10; i++) {**

**cout << i << endl;**

**}**

**return 0;**

**}**

**Programme-12**

**//program no 12**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int num, factorial = 1;**

**cout << "Enter a natural number: ";**

**cin >> num;**

**for (int i = 1; i <= num; i++) {**

**factorial \*= i;**

**}**

**cout << "Factorial of " << num << " = " << factorial << endl;**

**return 0;**

**}**

**Programme-13**

**//program no 13**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int num;**

**cout << "Enter a number: ";**

**cin >> num;**

**cout << "Multiplication Table of " << num << ":" << endl;**

**for (int i = 1; i <= 10; i++) {**

**cout << num << " x " << i << " = " << num \* i << endl;**

**}**

**return 0;**

**}**

**Programme-14**

**//program no 14**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int num, i = 1;**

**cout << "Enter a number: ";**

**cin >> num;**

**cout << "Table of num " << endl;**

**while (i <= 10) {**

**cout << num << " x " << i << " = " << num \* i << endl;**

**i++;**

**}**

**return 0;**

**}**

**Programme-15**

**//program no 15**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int num, reverse = 0;**

**cout << "Enter a number: ";**

**cin >> num;**

**int originalNum = num;**

**while (num != 0) {**

**int remainder = num % 10;**

**reverse = reverse \* 10 + remainder;**

**num /= 10;**

**}**

**cout << "Reverse of " << originalNum << " is: " << reverse << endl;**

**return 0;**

**}**

**Programme-16**

**//program no 16**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int num;**

**cout << "Enter a number: ";**

**cin >> num;**

**bool isPrime = true;{**

**for (int i = 2; i \* i <= num; i++)**

**}**

**}**

**if (isPrime && num > 1) {**

**cout << num << " is a prime number." << endl;**

**} else {**

**cout << num << " is not a prime number." << endl;**

**}**

**return 0;**

**}**

**Programme-17**

**//program no 17**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int num, sum = 0;**

**cout << "Enter a number: ";**

**cin >> num;**

**int originalNum = num;**

**while (num != 0) {**

**int digit = num % 10;**

**sum += digit;**

**num /= 10;**

**}**

**cout << "Sum of digits of " << originalNum << " is: " << sum << endl;**

**return 0;**

**}**

**Programme=19**

**//program no 19**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int sum = 0;**

**for (int i = 2; i <= 50; i += 2) {**

**sum += i;**

**}**

**cout << "Sum of even numbers between 1 and 50: " << endl;**

**return 0;**

**}**

**Programme-20**

**//program no 20**

**#include <iostream>**

**using namespace std;**

**int main() {**

**int a,b;**

**for (b=1,b<=5,b++)**

**{**

**for(a=1,a<=5,a++)**

**cout << "\*" << endl;**

**cout<<"\n"<<;**

**}**

**return 0;**

**}**