## ASSILINMENT - 3

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```
Name: - Mamte Kuman
41)
    # Include < rostreams
     Using namespace stel;
     class vehicle
       Public:
       int muleage)
        in price:
        void getdota ()
      5
       Cow << "Enter the mileage of vehicle" << end 1;
       cin >> mileage
       COUT (C"ENTER me price of vehicle: "Icend!;
       Cinsporte;
     vold showdard ()
       COW CC"MILIFANE = "K Milege Clend";
       Cout "PRICE = " ( Price ( Price )
     4;
   Class cor: public visitual vericle
    Public:
    int owner_cost;
    int warr;
    char * fuel -type;
    void gerdorg_cor()
```

```
fuel - type = new char (50);
    Cout (L'Ender the ownership Cost of cor: "Klendi.
    cin >2 owner - cost;
    cow ce" Ender the worsenty of the car: " exerd );
    CINSDWOM;
   COW KL'ENSO He fuel type of the cor: "Kends;
   geten ();
    gers (fuel-type);
  2
 void show data_cor U
 2
 COUT LL'OWNERSHIP-COST="Le owner-Cost Mendi;
 COUT CL" WARRENTY !! CLUBST LC ENDI;
 cour « "fuEL-TIPE= "< fuel - type < end );
 4
2;
closs Bike: Public visited vehicle
5
  Public:
  int cylind;
  int gears;
  Cher wype [5);
  int fuel Size)
  void geldota-bike U
  5
 course" Enter the number of cylinders: " (cends;
 cin > cylind;
 Cout cc' Enter the number of glass: "</end);
  cm >> geoss;
  contactionter the type of wheel in Bixe: "(clends;
 SCHEHON ()
```

```
gets (wtype);
  Court LL' Enses the fuel tent Size of the BIKE: "Leends;
   Cinsofuel - size;
  Void showdown_bike()
 Cour ((" for Bire: - " everd!;
 CONT CC'NUMBER OF CYCLINDERS 2'LL CYLIND CLENDS;
 Cout ce" NumBER of CHEARS = "<1 geoss <18001;
 COUL CL' TYPE OF WHEEL= "<< WHYPE (LENDI;
 cont « "fuel size" << fuel - size << end );
  4
2;
class Andi: Public car
 Public :
   char model type [50);
   void getdate, audi()
  coulce "Entre model type: "ccerd 1;
  gets (model type);
  Cous Leands;
 void showdate_andic)
   cow/cc" for Audi "ccerdi;
  COUNT CLEMODER TYPE = "<< model type < cends;
 closs food: Public cor
  pushe!
  char modelype (50);
   void getdoog_ford()
```

```
Cow <1 'Enser model type: "<< ends;
   gets (modeltype);
   aut ecends;
  U book_ Ptoburanz book
   Cow (2" for ford "co ends;
  COM CL' MODEL TYPE = "< ( model type < cends."
 4
2;
closs Bapan: Public Bite
   public:
     chor modelsype [50]:
     void getdata, 50000
    cource" Enser model sype; "cc ends;
  getchor ();
  gets (modeltype):
  cont ce ends;
 void show data - basasts
 CONTICE SOY BODAD " coend 1;
 Cout cc "MODEL TYPE=" < model type < ends;
closs TVS: Public BIKE
  public :
  char moetlype [50);
 void getdalq_HIS()
    cource "Enjes model type: " (cerd2;
  gelchos ();
  gots (modeltype);
  CONS CCOOL.
```

```
void snowdater-trs()
     cout << "For TVS" << And1;
    coult ce " MODEL TYPE = "ce model type < cends;
  2,
 2;
In+ moin()
 In a option, model;
 cout cc"1. Or In";
 Cow cc"2. Bike in"
 Cow cci'enks your choice:";
 Can So option:
  of (option==1)
  cout cc'L. Audin"y;
  cow (1"2. Ford In";
  cout as "Enter me model: " cornol;
   Cin symodel;
  of (model ==1)
  Audi ai;
  a. getdota U;
  a L. gesdora Cor ();
   a, gerdora avoltu;
   a. showdeser();
   az. Show dota_cor();
   a. show date - audi U:
   food as
   a, getderely;
```

```
as gestlase _ cor ();
  a, getdola gord ();
  az. Showdord U;
  az. showdord - cor U:
  a. Showdata Lord U;
 4
( f (option == 2)
 cont cc" 1. Basas in";
 Cow ec"2 Trs In";
 cow ki Enter the model "Kend!;
 cin 22 model:
 18 (madel = =1)
  Banas by
 b1. getdata ():
 be getdater, blee U;
 bi. godda _ bagas ();
by showdasqu;
b1. Show dota_biree ();
be show data - bagan U;
4
it (model = 22)
TVS bL;
be- gerelata U:
by getdora bive ();
by golder tus ();
br. & show date ():
by showdard - sixe U;
b1. Showdord ths ();
```

```
# include crosseams
 using namespace stel;
 closs shape
 Public :
  vistual vold calculate.
  COW CC "ADEQ of your sharpe";
4
  virtual-shape U
  cont cl'shape Destrutor call in's
 Closs Reclengle: Public shope
 public :
 int width, height, area;
 void calculate U
  cout cc" Enter wider of Rectangle: ";
 an Dwidth
 Cour 20" Enles Height of Rectorgle ! ";
  cin so height !
  asea = height widt;
 Cow. CL" Areg of Recongle: "<cosea << "In";
3
vistual ~ Rectangle ()
  Cout ce "Rechangle Debrucher call bi";
```

```
Clots squore: Public Shape
 2
 pushic:
Int side, oseas
 void calculate
 3
  COULT CE " Enter one side your of square: ";
  cin sosside;
  area = side * side;
  cont ce" Atea of square: "Le ortale "in";
 3
 Virtual square ()
5
  Cont (c" square Destryctor com m";
21,
 int maine
  Shape AS;
  Reclargle o,
  S=8~,
  S-) colculate U;
 Square Sq)
 S=859;
 S-) colculat ();
 setumo;
3
```

```
13)
     # include ciostseam>
      Using namespace stell
      Clas Student
       public:
       char name (50);
       ther board (20);
      int soll-no;
     vistual void getdater ()
     cout ce" Ener namo; "ce end";
    gets (name);
     Cout co" Enter branch: " (cends;
     gets (boanch);
     Cout Le "Entes the Rell-NO;" LEARD !.
      Cin so soll- no:
     virtual void Showdata ()
    Cout (1" In Details of the student ose: " (cends ecends:
    cont co " name of students: "co name cound;
   Cow LC" Branch of Student: " LC Branch Ecende;
   Contice" Roll no of the student: "<< rall_no «cends
  4
 21;
  clots Academic: Public student
  public:
     int mork_in_maths;
    (nx morros - m -opps)
    int mores_in_day
    inh mores-in-de;
```

```
void getdara U
  Cout cc" (h Enter morps in mans: "ccends;
  (in & s) monos in matt);
  Cout << " Enter morros in opp: " < condi;
  con >> morres_in. opps;
  CONT CC " ENRO MORROD M DSA:" CC RODI;
  cm > mores_in_day;
  CONT KE ! Enter morros in DE : "KE Ends;
  on smorts-in-de;
  void shoulder
My rod, Per;
tot = mones _ in_de + mones _ in _ dea + marks _ in_ morts +
       monas_in_opps;
Per = 107/4;
Cout ( "In morps in moths!" ( mores in moths coerds
per = tol /4)
cow co"in mores in mores: " co mores _in_oops condi
contice in monos in DSA: "Le monos_in-dsa < ends;
context'in in DE! ! LL morks_im de << endl;
Cout LC" TOtal manes: "CC total KCPNOL;
Cout ce" percentage: "< per « endi;
21
 1 nt man ()
  Student XS = n cw Student;
 Academics a;
  S-> getelose ():
  S-) Showdate (1.
  5-> getdag ();
```

```
(5)
      # include < iostram>
      using namespace stel;
      template < closs t>
      Closs vector
        TV [20]'
        Int stee ;
     Pustro:
       void create ();
       void modry 1):
       void mult ();
       void display U;
    2;
   templave < doll T)
   void vedo < T) :: crearel)
     IN7 1-
    T vale;
    char ans!
    STZQ = 0'
    do
     cout << 'In Enter the index & value !"
     cm >> i>> value)
     V(i)=value;
     Stre ++;
     Cout (c"in Do you want more element 9.1;
     un sams
   2 unite (ans == y' 11ans == 'y' J',
   4
  template < clots To
  Void vever < T> :: modify()
```

```
int key;
    T newval;
    cout << "In Ender index for modification!";
    Cin >> key;
    Cout cin Enter new value !";
    cin sonewval;
    V[ Key) = newral;
  template < clots ot >
  void vector <T> !: mull)
 S inti
   in salanal;
   cont (c'in Ent) Scalar value for multiplication";
   cin >> scaloreral;
  & (1=0; i2size; 1++)
     VEID= VIIX SCOUSHAL;
template < closs T)
void veer < 7: duploy
 m+i;
cout (("In size of vector 15:" << 25/20;
cout < c" in Elements in verty ose: ";
Cout <c"(";
10 (i = 0; i < Stre; i+t)
Sow ceveire"
2 Coll (C")";
mr main ()
```

```
Int Ch:
vector < mo > obj;
Cout < c'in Porgoon for template closs")
00
 COUT-CC" M MATIN MENU";
 Cow cc"In 1. coesse ";
 con cc"in 2. Display",
 Cout cc'in 3. must ";
 Cout < L"In 4. modely";
 cow ce "In O. Exit ";
 COW CC"IN ENPS your choice: ";
 on son;
Switchlich
Cose 1;
ODJ. Creste U.
bolac:
Closs 2:
obj. disploy();
botage;
Cose 3:
  Dog. mult ();
  botak;
Case 4:
  Ob 3. modery():
 pear !
Cose o'
cout ce" (n Exit \n";
 bocare)
```

desemit: cont cci in Invalid choice "; brown; 3 unite (ch! =0); sommo; 3

```
6
     # include < jostram>
     wing namespace sel;
      void function ()
      tory
       thook "hello";
    carel (const char *)
    Cout cc'in cought exception inside function in';
    throw)
  int mainly
  Cowacc " moun steat ";
     Sunction ();
  4
  careh (and thor *)
   Cow cc'in caught exception made main in';
  contic main end":
  schow o;
 4
```

王 # indude < rostseams using namespage stel; template csypenameTST insers\_am(TQC), in+n) Cour (1" Ents the elements in array" ccords; for (in+ 1=0) (cn; 1+1) cm sacij; retumo; templace < type name T) T search \_ cons LT q[], T P, inth) ind flag =0; for (inti 20, ion; itt) ₹ 13 (9(1)==P) break; ( flog ! =0) (sur cc'édemero is gourd: "cceron; Zuse S

```
Const 21 ( Blement 15 not formed: " ( end);
3 selvan o;
int main ()
Int a Cross;
Intn,P;
 Cout LL" Enter the number of elemenos!" << endl.
Cin son;
Insera_on< m+> (a,n);
Cont (c" fater the elements you work to season "ceards"
en sp)
Search_cookint stail in);
4
```

```
8
     # include < lostram>
     using namespace std;
     class composestring
     2
     Public:
     Char Str [25];
     Comparesting (char str 1())
     StockA(mis-) 242, 242);
  2
    Int opened == (comparesting sz)
     17 (storcap(sto, Sz. Sto) ==0)
     seturn 1;
   PUSE
      ochum o;
  2
   int operator (= (umpose story 53)
    18 (strolen (str) < = stolen (s3. str))
    return 1;
   puse
     Jeluon O.
   3
    1 nt operator >= (composestating s3)
   5
      H LStolen LStr ) >= stolen (53.5tr))
     seven!
    esse
      returno:
```

```
void compare (Composesting SI, composesting SZ)
§ H (SL== SZ)
  Cont CCS1. Sor CC'113 equal 10"
       << Sz. Str << erd1;
   ese
   5
    Coll CLSI. SH <2" Is not equal to"
        LLSZ-SH KLENDI;
    1751>=52)
      COUR CCSI. Sty CL" IS great than"
           CLS SK CLENDI;
    esse.
      Coulton CC Sz. St. <2" Is greater man!
         LCSI. Str ccerd1;
     4
  2
    void testestes ()
  3
 char Stot [] =" Hello";
 Char Store [] ="world";
 composesting SLISTS1);
 Compose Horry Szl Str2);
Cout cc" company 1" " <25). Sto <<" 1" and 1".
   CLSZ-SAR CLY/" " CL endL;
 Compose (SLISZ);
3
word jestloge 2()
 chor Stol ( ]= "Helw";
  char Strz() ="Helo";
```

```
composestary SIUTU:
 Compose stry Sz (Str 2);
 COW- KE" (n/n Companion)" "KLS, Stor K" " and 1"
       <252:58 <2" " " « ecordi;
  compose (SL, SZ);
2
int mounc)
  testcose LU;
  resteasez ();
  scrowo;
   3
```