```
{
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   "execution_count": 2,
   "metadata": {},
   "outputs": [
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     "name": "stdout",
     "output_type": "stream",
     "text": [
      "sum of elements in the list is: 100\n"
     ]
    }
   ],
   "source": [
    "#write a python program to sum all items in a list\n",
    "sum=0\n",
    "list=[12,3,5,67,3,10]\n",
    "for i in  range(0,len(list)):\n",
    "    sum=sum+list[i]\n",
    "print(\"sum of elements in the list is:\",sum)"
   ]
  },
  {
   "cell_type": "code",
   "execution_count": 3,
   "metadata": {},
   "outputs": [
    {
     "name": "stdout",
     "output_type": "stream",
     "text": [
      "[{}, {}, {}]\n"
     ]
    }
   ],
   "source": [
    "#write a python program to create a list of empty dictionaries\n",
    "n=3\n",
    "l=[{} for _ in range(n)]\n",
    "print(l)"
   ]
  },
```

```
{
 "cell_type": "code",
 "execution_count": 4,
 "metadata": {},
 "outputs": [
  {
   "name": "stdout",
   "output_type": "stream",
   "text": [
    "original dictionary is:{'keerthana': 32, 'shyam': 12, 'bhanu': 21, 'meghana': 36, 'mani': 5}\n",
    "key values are:\n",
    "keerthana\n",
    "shyam\n",
    "bhanu\n",
    "meghana\n",
    "mani\n"
   ]
  }
 ],
 "source": [
  "#.write a python program to access dictionary keys element by index\n",
  "d1={\"keerthana\":32,\"shyam\":12,\"bhanu\":21,\"meghana\":36,\"mani\":5}\n",
  "print(\"original dictionary is:\"+str(d1))\n",
  "print(\"key values are:\")\n",
  "for i in d1:\n",
  "    print(i)"
 ]
},
{
 "cell_type": "code",
 "execution_count": 5,
 "metadata": {},
 "outputs": [
  {
   "name": "stdout",
   "output_type": "stream",
   "text": [
    "keerthana 32\n",
    "shyam 12\n",
    "bhanu 21\n",
    "meghana 36\n",
    "mani 5\n"
   ]
  }
 ],
```

```
  "source": [
   "#python program to iterate over dictionaries using for loop\n",
   "d1={\"keerthana\":32,\"shyam\":12,\"bhanu\":21,\"meghana\":36,\"mani\":5}\n",
   "for k,v in d1.items():\n",
   "    print(k,v)"
  ]
 },
 {
  "cell_type": "code",
  "execution_count": 6,
  "metadata": {},
  "outputs": [
   {
    "name": "stdout",
    "output_type": "stream",
    "text": [
     "sum of items in the dictionary: 35\n"
    ]
   }
  ],
  "source": [
   "#python program to sum all items in the dictionary\n",
   "def sum(d2):\n",
   "    sum=0\n",
   "    for i in d2:\n",
   "        sum=sum+d2[i]\n",
   "    return sum\n",
   "d2={\"a\":12,\"b\":8,\"c\":15}\n",
   "print(\"sum of items in the dictionary:\",sum(d2))"
  ]
 },
 {
  "cell_type": "code",
  "execution_count": 7,
  "metadata": {},
  "outputs": [
   {
    "name": "stdout",
    "output_type": "stream",
    "text": [
     "{1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}\n"
    ]
   }
  ],
  "source": [
```

```
   "dic1={1:10,2:20}\n",
   "dic2={3:30,4:40}\n",
   "dic3={5:50,6:60}\n",
   "dic4={}\n",
   "for d in (dic1,dic2,dic3):\n",
   "    dic4.update(d)\n",
   "print(dic4)"
  ]
 },
 {
  "cell_type": "code",
  "execution_count": 8,
  "metadata": {},
  "outputs": [
   {
    "name": "stdout",
    "output_type": "stream",
    "text": [
     "(5, 10, 15, 20, 25)\n"
    ]
   }
  ],
  "source": [
   "# write a python program to create a tuple.\n",
   "t=5,10,15,20,25\n",
   "print(t)"
  ]
 },
 {
  "cell_type": "code",
  "execution_count": 9,
  "metadata": {},
  "outputs": [
   {
    "name": "stdout",
    "output_type": "stream",
    "text": [
     "hello\n"
    ]
   }
  ],
  "source": [
   "#write a python program to convert a tuple in to a string\n",
   "tuple=('h','e','l','l','o')\n",
   "str=''.join(tuple)\n",
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```
   "print(str)"
  ]
 },
 {
  "cell_type": "code",
  "execution_count": 10,
  "metadata": {},
  "outputs": [
   {
    "name": "stdout",
    "output_type": "stream",
    "text": [
     "(5, 4)\n"
    ]
   }
  ],
  "source": [
   "#write a python program to slice a tuple\n",
   "t=(2,4,3,5,4,6,7,8,6,1)\n",
   "slice=t[3:5]\n",
   "print(slice)\n"
  ]
 },
 {
  "cell_type": "code",
  "execution_count": 11,
  "metadata": {},
  "outputs": [
   {
    "name": "stdout",
    "output_type": "stream",
    "text": [
     "8\n"
    ]
   }
  ],
  "source": [
   "#write a python program to find the length of a tuple.\n",
   "\n",
   "t3=(10,6,8,7,9,0,6,5)\n",
   "print(len(t3))"
  ]
 },
 {
  "cell_type": "code",
```

```
 "execution_count": 12,
 "metadata": {},
 "outputs": [
  {
   "name": "stdout",
   "output_type": "stream",
   "text": [
    "{'bhanu': [10], 'keerthana': [12], 'shyam': [25]}\n"
   ]
  }
 ],
 "source": [
  "#write a python program to convert a tuple into a dictionary\n",
  "\n",
  "def convert(tup,di):\n",
  "    for a,b in tup:\n",
  "        di.setdefault(a,[]).append(b)\n",
  "    return di\n",
  "tups=[(\"bhanu\",10),(\"keerthana\",12),(\"shyam\",25)]\n",
  "dictionary={}\n",
  "print(convert(tups,dictionary))"
 ]
},
{
 "cell_type": "code",
 "execution_count": 13,
 "metadata": {},
 "outputs": [
  {
   "name": "stdout",
   "output_type": "stream",
   "text": [
    "(9, 8, 7, 6, 5, 4, 3, 2, 1)\n"
   ]
  }
 ],
 "source": [
  "#write a python program to reverse a tuple\n",
  "def reverse(tuple):\n",
  "    new_tuple=tuple[::-1]\n",
  "    return new_tuple\n",
  "tuple=(1,2,3,4,5,6,7,8,9)\n",
  "print(reverse(tuple))"
 ]
},
```

```
{
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 "execution_count": 14,
 "metadata": {},
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  {
   "name": "stdout",
   "output_type": "stream",
   "text": [
    "{'x': [1], 'y': [2], 'z': [3]}\n"
   ]
  }
 ],
 "source": [
  "#write a python program to convert a list of tuples into a dictionary.\n",
  "l=[(\"x\",1),(\"y\",2),(\"z\",3)]\n",
  "d={}\n",
  "for a,b in l:\n",
  "    d.setdefault(a, []).append(b)\n",
  "print(d)"
 ]
},
{
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 "execution_count": 23,
 "metadata": {},
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   "output_type": "stream",
   "text": [
    "[5, 10, 7, 4, 15, 3]\n"
   ]
  }
 ],
 "source": [
  "def convert(list):\n",
  "    return tuple(list)\n",
  "list1 = [5, 10, 7, 4, 15, 3]\n",
  "print(convert(list1))"
 ]
},
{
 "cell_type": "code",
 "execution_count": null,
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  }
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   "language": "python",
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    "version": 3
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   "pygments_lexer": "ipython3",
   "version": "3.7.6"
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