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                    Adrian Beloqui      CSC 36000      Section 11
                      Spring 2017        Assignment #5
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The Original Inventory Array:

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Inventory   Item                       Quantity    Reorder   Cost of    Selling
Number      Description                on hand     Number    Item       Price
--------    ------------------------   --------    -------   -------    -------
  1001      Data Structures in C          15         25       80.52     138.75
  4202      Operating Systems             2          25       77.75     101.35
  9903      C++ Program Design            1          50       19.99      39.99
  1904      Oh! Pascal                    0          20       16.65      32.32
  1805      Introduction to HTML         201         50       13.35      28.89
  4406      Computer Hardware             15         25       37.85      62.98
  3317      Analytic Geometry             2          15       21.72      34.45
  1918      Networks in Action            12         30       37.65      68.88
  3919      Assembly Lang Prog            21         25       13.35      29.99
  5010      FORTRAN 77                    16         20       20.95      31.95
  3311      Using Netscape                74         50        6.65      19.95
  2212      C How to Program              33         75       18.85      35.55
  1113      The Joy of C                  13         39       31.33      52.55
  5514      The Joy of C++                24         48       41.24      72.34
  1315      C++ for Dummies               13         25       12.33      42.33
  7616      Network Security              1          15       87.89     157.99
  2017      Learning C++                  17         50       19.98      37.78
```

The Inventory Array sorted in descending order according to the Quantity on Hand using the Exchange Sort:

Inventory Number	Item Description	Quantity on hand	Reorder Number	Cost of Item	Selling Price
1805	Introduction to HTML	201	50	13.35	28.89
3311	Using Netscape	74	50	6.65	19.95
2212	C How to Program	33	75	18.85	35.55
5514	The Joy of C++	24	48	41.24	72.34
3919	Assembly Lang Prog	21	25	13.35	29.99
2017	Learning C++	17	50	19.98	37.78
5010	FORTRAN 77	16	20	20.95	31.95
4406	Computer Hardware	15	25	37.85	62.98
1001	Data Structures in C	15	25	80.52	138.75
1315	C++ for Dummies	13	25	12.33	42.33
1113	The Joy of C	13	39	31.33	52.55
1918	Networks in Action	12	30	37.65	68.88
4202	Operating Systems	2	25	77.75	101.35
3317	Analytic Geometry	2	15	21.72	34.45
9903	C++ Program Design	1	50	19.99	39.99
7616	Network Security	1	15	87.89	157.99
1904	Oh! Pascal	0	20	16.65	32.32

The Inventory Array sorted in descending order according to the Selling Price using the Shell Sort:

Inventory Number	Item Description	Quantity on hand	Reorder Number	Cost of Item	Selling Price
7616	Network Security	1	15	87.89	157.99
1001	Data Structures in C	15	25	80.52	138.75
4202	Operating Systems	2	25	77.75	101.35
5514	The Joy of C++	24	48	41.24	72.34
1918	Networks in Action	12	30	37.65	68.88
4406	Computer Hardware	15	25	37.85	62.98
1113	The Joy of C	13	39	31.33	52.55
1315	C++ for Dummies	13	25	12.33	42.33
9903	C++ Program Design	1	50	19.99	39.99
2017	Learning C++	17	50	19.98	37.78
2212	C How to Program	33	75	18.85	35.55
3317	Analytic Geometry	2	15	21.72	34.45
1904	Oh! Pascal	0	20	16.65	32.32
5010	FORTRAN 77	16	20	20.95	31.95
3919	Assembly Lang Prog	21	25	13.35	29.99
1805	Introduction to HTML	201	50	13.35	28.89
3311	Using Netscape	74	50	6.65	19.95

The Inventory Array sorted in ascending order according to the Inventory Number using the Quick Sort:

Inventory Number	Item Description	Quantity on hand	Reorder Number	Cost of Item	Selling Price
1001	Data Structures in C	15	25	80.52	138.75
1113	The Joy of C	13	39	31.33	52.55
1315	C++ for Dummies	13	25	12.33	42.33
1805	Introduction to HTML	201	50	13.35	28.89
1904	Oh! Pascal	0	20	16.65	32.32
1918	Networks in Action	12	30	37.65	68.88
2017	Learning C++	17	50	19.98	37.78
2212	C How to Program	33	75	18.85	35.55
3311	Using Netscape	74	50	6.65	19.95
3317	Analytic Geometry	2	15	21.72	34.45
3919	Assembly Lang Prog	21	25	13.35	29.99
4202	Operating Systems	2	25	77.75	101.35
4406	Computer Hardware	15	25	37.85	62.98
5010	FORTRAN 77	16	20	20.95	31.95
5514	The Joy of C++	24	48	41.24	72.34
7616	Network Security	1	15	87.89	157.99
9903	C++ Program Design	1	50	19.99	39.99

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|                END OF PROGRAM OUTPUT           |
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