



Homework: Array Copying

Copying from partially filled arrays is an important skill for a programmer!

You will maintain 3 arrays of Strings.

The first array contains foods that you might try someday.

The second list contains foods you've already tried.

The third list is foods you have decided you are NOT going to try.

Provide a menu so a user can display all of the list at the same time

NOTE: If you are looking for where to insert a food to try for option 7, you need to check for a null String or an empty String, either one is a spot to put the new food if(tryList[i] == null || tryList[i].equals("")) {

```
//we can put a new food here
}
```

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

Initialize will populate the first two arrays with values but clear the last one.

Copy from first to third must allow a user to select the starting and ending elements to move.

Those are copied to the end of the list (either 2 or 3 depending)

Watch a run through:

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

```
1
                                               --Not going there!----
     Interested-----Tried-
     {EMPTY}
                          {EMPTY}
                                                {EMPTY}
0
1
     {EMPTY}
                          {EMPTY}
                                                {EMPTY}
2
     {EMPTY}
                          {EMPTY}
                                                {EMPTY}
3
     {EMPTY}
                          {EMPTY}
                                                {EMPTY}
4
                          {EMPTY}
     {EMPTY}
                                                {EMPTY}
```

```
{EMPTY}
5
     {EMPTY}
                                                    {EMPTY}
6
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
7
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
     {EMPTY}
8
                             {EMPTY}
                                                    {EMPTY}
     {EMPTY}
9
                             {EMPTY}
                                                    {EMPTY}
10
     {EMPTY}
                            {EMPTY}
                                                    {EMPTY}
11
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
12
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
     {EMPTY}
13
                             {EMPTY}
                                                    {EMPTY}
14
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
```

*** Array Copying Menu ***

- = Display Lists
- **②** = Move from First List to 2nd
- **s** = Move from First List to 3rd
- 4 = Consolidate First List
- Initialize
- 6 = Clear Tried List
- = Add to Try List

Your Selection?

*** Array Copying Menu ***

- = Display Lists
- e = Move from First List to 2nd
- **⑤** = Move from First List to 3rd
- 4 = Consolidate First List
- = Initialize
- = Clear Tried List
- = Add to Try List

Your Selection?

5

```
1
     Interested-----Tried-----Not going there!----
     Fish Eyes
0
                          Rice and Beans
                                                {EMPTY}
1
     Frog Legs
                          Liver
                                                {EMPTY}
2
     Alligator
                          Paella
                                                {EMPTY}
3
     Sushi
                          Chicken
                                                {EMPTY}
4
     Buffalo
                          Pizza
                                                {EMPTY}
5
     Cow Tongue
                           {EMPTY}
                                                 {EMPTY}
6
     Shark
                           {EMPTY}
                                                {EMPTY}
7
     Scrapple
                           {EMPTY}
                                                {EMPTY}
8
     Cheese Steak
                           {EMPTY}
                                                {EMPTY}
9
     Seaweed
                           {EMPTY}
                                                 \{\mathsf{EMPTY}\}
     Vegetarian Korma
10
                           {EMPTY}
                                                {EMPTY}
11
     Deep Fried Oreo
                           {EMPTY}
                                                {EMPTY}
12
     ChickBacRanch Pizza {EMPTY}
                                                {EMPTY}
13
     Caviar
                           {EMPTY}
                                                {EMPTY}
14
     {EMPTY}
                           {EMPTY}
                                                 {EMPTY}
```

```
*** Array Copying Menu ***

① = Display Lists
② = Move from First List to 2nd
③ = Move from First List to 3rd
② = Consolidate First List
⑤ = Initialize
⑥ = Clear Tried List
② = Add to Try List
③ = Exit
Your Selection?
```

```
Starting with which item?

1
Ending with which item?

5
Copying...
DONE
```

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
```

```
② = Consolidate First List
③ = Initialize
③ = Clear Tried List
② = Add to Try List
③ = Exit
Your Selection?
```

```
1
    Interested-----Tried-----Not going there!----
0
    Fish Eyes
                         Rice and Beans
                                              {EMPTY}
1
     {EMPTY}
                         Liver
                                              {EMPTY}
2
     {EMPTY}
                         Paella
                                              {EMPTY}
3
                         Chicken
     {EMPTY}
                                              {EMPTY}
4
                         Pizza
     {EMPTY}
                                              {EMPTY}
5
                         Frog Legs
     {EMPTY}
                                              {EMPTY}
6
    Shark
                         Alligator
                                              {EMPTY}
7
                         Sushi
    Scrapple
                                              {EMPTY}
8
    Cheese Steak
                         Buffalo
                                              {EMPTY}
                         Cow Tongue
9
                                              {EMPTY}
    Seaweed
10
                                              {EMPTY}
    Vegetarian Korma
                         {EMPTY}
11
    Deep Fried Oreo
                                              {EMPTY}
                         {EMPTY}
    ChickBacRanch Pizza {EMPTY}
12
                                              {EMPTY}
13
                                              {EMPTY}
    Caviar
                         {EMPTY}
14
    {EMPTY}
                         {EMPTY}
                                              {EMPTY}
```

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

```
Starting with which item?

13

Ending with which item?

13

Copying...
```

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

```
1
                                            ----Not going there!----
     Interested-----Tried-----
                          Rice and Beans
     Fish Eyes
                                                Caviar
0
1
     {EMPTY}
                          Liver
                                                {EMPTY}
2
                          Paella
     {EMPTY}
                                                {EMPTY}
3
                          Chicken
     {EMPTY}
                                                {EMPTY}
4
                          Pizza
     {EMPTY}
                                                {EMPTY}
5
     {EMPTY}
                          Frog Legs
                                                {EMPTY}
6
     Shark
                          Alligator
                                                {EMPTY}
7
                          Sushi
     Scrapple
                                                {EMPTY}
8
                          Buffalo
     Cheese Steak
                                                {EMPTY}
9
     Seaweed
                          Cow Tongue
                                                {EMPTY}
10
     Vegetarian Korma
                          {EMPTY}
                                                {EMPTY}
11
     Deep Fried Oreo
                          {EMPTY}
                                                {EMPTY}
     ChickBacRanch Pizza {EMPTY}
12
                                                {EMPTY}
13
     {EMPTY}
                          {EMPTY}
                                                {EMPTY}
14
     {EMPTY}
                          {EMPTY}
                                                {EMPTY}
```

***	Array Copying Menu ***
	 Display Lists Move from First List to 2nd Move from First List to 3rd Consolidate First List
	⑤ = Initialize⑥ = Clear Tried List
Your :	<pre></pre>

3
Starting with which item?
6
Ending with which item?
7
Copying...
DONE

*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?

1 Interested-----Tried-----Not going there!----0 Fish Eyes Rice and Beans Caviar 1 Liver Shark {EMPTY} 2 Paella {EMPTY} Scrapple 3 Chicken {EMPTY} {EMPTY} 4 Pizza {EMPTY} {EMPTY} 5 {EMPTY} Frog Legs {EMPTY} 6 Alligator {EMPTY} {EMPTY} 7 {EMPTY} Sushi {EMPTY} Buffalo 8 Cheese Steak $\{\mathsf{EMPTY}\}$ Cow Tongue 9 {EMPTY} Seaweed 10 Vegetarian Korma {EMPTY} {EMPTY} 11 Deep Fried Oreo {EMPTY} {EMPTY} ChickBacRanch Pizza {EMPTY} 12 {EMPTY} 13 {EMPTY} {EMPTY} {EMPTY} 14 {EMPTY} {EMPTY} {EMPTY}

*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd

4

```
*** Array Copying Menu ***

① = Display Lists
② = Move from First List to 2nd
③ = Move from First List to 3rd
② = Consolidate First List
③ = Initialize
⑤ = Clear Tried List
② = Add to Try List
③ = Exit
Your Selection?
```

1 Interested-----Tried-----Not going there!----Fish Eyes Rice and Beans Caviar 0 1 Cheese Steak Liver Shark 2 Seaweed Paella Scrapple 3 Chicken Vegetarian Korma {EMPTY} 4 Pizza Deep Fried Oreo {EMPTY} 5 ChickBacRanch Pizza Frog Legs {EMPTY} 6 {EMPTY} Alligator {EMPTY} 7 Sushi {EMPTY} $\{\mathsf{EMPTY}\}$ 8 Buffalo {EMPTY} {EMPTY} 9 {EMPTY} Cow Tongue {EMPTY} 10 {EMPTY} {EMPTY} {EMPTY} 11 {EMPTY} {EMPTY} {EMPTY} 12 {EMPTY} {EMPTY} {EMPTY} $\{EMPTY\}$ 13 {EMPTY} {EMPTY} $\{\mathsf{EMPTY}\}$ 14 {EMPTY} {EMPTY}

② = Move from First List to 2nd
③ = Move from First List to 3rd
④ = Consolidate First List
⑤ = Initialize
⑥ = Clear Tried List
⑦ = Add to Try List
③ = Exit
Your Selection?

7
Please consolidate first
OK, what food to add
Fried Crickets

*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?

1 ----Not going there!----Interested-----Tried-----Fish Eyes Rice and Beans Caviar 0 Cheese Steak 1 Liver Shark 2 Seaweed Paella Scrapple 3 Vegetarian Korma Chicken {EMPTY} 4 Deep Fried Oreo Pizza {EMPTY} ChickBacRanch Pizza Frog Legs 5 {EMPTY} 6 Fried Crickets Alligator {EMPTY} 7 Sushi {EMPTY} {EMPTY} 8 Buffalo $\{\mathsf{EMPTY}\}$ {EMPTY} 9 Cow Tongue {EMPTY} {EMPTY} 10 {EMPTY} {EMPTY} {EMPTY} 11 {EMPTY} {EMPTY} {EMPTY} 12 {EMPTY} {EMPTY} {EMPTY} 13 {EMPTY} {EMPTY} {EMPTY} 14 {EMPTY} {EMPTY} {EMPTY}

*** Array Copying Menu *** • = Display Lists • = Move from First List to 2nd • = Move from First List to 3rd • = Consolidate First List • = Initialize • = Clear Tried List • = Add to Try List • = Exit Your Selection?

6

*** Array Copying Menu *** • = Display Lists • = Move from First List to 2nd • = Move from First List to 3rd • = Consolidate First List • = Initialize • = Clear Tried List • = Add to Try List • = Exit Your Selection?

```
1
     Interested-----Tried--
                                              -----Not going there!----
     Fish Eyes
                                                     Caviar
0
                             {EMPTY}
     Cheese Steak
1
                             {EMPTY}
                                                     Shark
2
     Seaweed
                             {EMPTY}
                                                     Scrapple
3
     Vegetarian Korma
                             {EMPTY}
                                                     {EMPTY}
4
     Deep Fried Oreo
                             {EMPTY}
                                                     {EMPTY}
5
     ChickBacRanch Pizza {EMPTY}
                                                     {EMPTY}
                             {EMPTY}
6
     Fried Crickets
                                                     {EMPTY}
     {EMPTY}
7
                             {EMPTY}
                                                     {EMPTY}
8
     {EMPTY}
                             {EMPTY}
                                                     {EMPTY}
9
     \{\mathsf{EMPTY}\}
                             {EMPTY}
                                                     \{\mathsf{EMPTY}\}
10
     {EMPTY}
                             {EMPTY}
                                                     {EMPTY}
11
     {EMPTY}
                             {EMPTY}
                                                     {EMPTY}
12
     \{\mathsf{EMPTY}\}
                             {EMPTY}
                                                     {EMPTY}
13
     {EMPTY}
                             {EMPTY}
                                                     {EMPTY}
14
                             {EMPTY}
                                                     {EMPTY}
     \{\mathsf{EMPTY}\}
```

*** Array Copying Menu *** ① = Display Lists ② = Move from First List to 2nd ③ = Move from First List to 3rd ② = Consolidate First List ⑤ = Initialize ⑥ = Clear Tried List ② = Add to Try List ③ = Exit Your Selection?

```
2
Starting with which item?
3
Ending with which item?
5
Copying...
DONE
```

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

```
1
     Interested-----Tried-----Not going there!----
0
     Fish Eyes
                            Vegetarian Korma
                                                   Caviar
     Cheese Steak
                            Deep Fried Oreo
                                                   Shark
1
                            ChickBacRanch Pizza Scrapple
2
     Seaweed
3
     {EMPTY}
                                                   {EMPTY}
                            {EMPTY}
4
     {EMPTY}
                            {EMPTY}
                                                   {EMPTY}
5
     {EMPTY}
                            {EMPTY}
                                                   {EMPTY}
6
     Fried Crickets
                            {EMPTY}
                                                   {EMPTY}
7
                                                   \{\mathsf{EMPTY}\}
     {EMPTY}
                            {EMPTY}
8
     {EMPTY}
                            {EMPTY}
                                                   {EMPTY}
9
     {EMPTY}
                            {EMPTY}
                                                   \{\mathsf{EMPTY}\}
10
     \{\mathsf{EMPTY}\}
                            {EMPTY}
                                                   {EMPTY}
11
     {EMPTY}
                            {EMPTY}
                                                   {EMPTY}
12
     {EMPTY}
                            {EMPTY}
                                                   {EMPTY}
     {EMPTY}
13
                            {EMPTY}
                                                   {EMPTY}
14
     {EMPTY}
                            {EMPTY}
                                                   {EMPTY}
```

*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd

```
• = Consolidate First List
```

• = Initialize

6 = Clear Tried List

• = Add to Try List

Your Selection?

7
Please consolidate first
OK, what food to add
Chix Waffles

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

```
1
     Interested------Tried-----
                                                 ---Not going there!----
                                                    Caviar
     Fish Eyes
                            Vegetarian Korma
0
1
     Cheese Steak
                            Deep Fried Oreo
                                                    Shark
     Seaweed
                            ChickBacRanch Pizza Scrapple
2
3
     Chix Waffles
                                                    {EMPTY}
                            {EMPTY}
4
     {EMPTY}
                            {EMPTY}
                                                    {EMPTY}
5
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
6
     Fried Crickets
                             {EMPTY}
                                                    {EMPTY}
7
     {EMPTY}
                            {EMPTY}
                                                    {EMPTY}
8
     {EMPTY}
                            {EMPTY}
                                                    {EMPTY}
9
                             {EMPTY}
     {EMPTY}
                                                    {EMPTY}
10
     \{\overline{\mathsf{EMPTY}}\}
                             {EMPTY}
                                                    {EMPTY}
     {EMPTY}
11
                                                    {EMPTY}
                             {EMPTY}
12
     \{\mathsf{EMPTY}\}
                             {EMPTY}
                                                    {EMPTY}
13
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
14
     {EMPTY}
                             {EMPTY}
                                                    {EMPTY}
                       Array Copying Menu
```

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?

4

*** Array Copying Menu *** ① = Display Lists ② = Move from First List to 2nd ③ = Move from First List to 3rd ② = Consolidate First List ⑤ = Initialize ⑥ = Clear Tried List ② = Add to Try List ③ = Exit Your Selection?

Ŀ

```
*** Array Copying Menu ***

• = Display Lists
• = Move from First List to 2nd
• = Move from First List to 3rd
• = Consolidate First List
• = Initialize
• = Clear Tried List
• = Add to Try List
• = Exit
Your Selection?
```

Interested-----Tried-----Not going there!---Interested-----Tried-----Not going there!---Fish Eyes Rice and Beans {EMPTY}
Frog Legs Liver {EMPTY}
Alligator Paella {EMPTY}

3 4 5 6 7 8 9 10 11 12 13 14	Deep Frie ChickBack	teak	{EMPTY}	{ EMF { EMF { EMF { EMF { EMF { EMF { EMF { EMF { EMF { EMF	?TY} ?TY} ?TY} ?TY} ?TY} ?TY} ?TY}		
		*** Arra	y Copying	Menu ***			
	<pre> • = Display Lists • = Move from First List to 2nd • = Move from First List to 3rd • = Consolidate First List • = Initialize • = Clear Tried List • = Add to Try List • = Exit Your Selection? </pre>						

Project 1 Name	Array Copy Practice	
Class 1 Name	ArrayPractice_Copying.java	

RUBRIC	
Copies from 1st array correct range	15
Adds to correct spot	10
Consolidate	20
Clear Tried List	3
Add to try List	2
TOTAL	50

