Match PO in invoice to school

Pull out PO number from invoice and use that as an indicator of school. PO number is the only failproof way of identifying the school from the invoice

```matlab
%%use POindex to hold temporary school information
purchaseindex = 0;
POsCharged = [];
```

Pull purchase order out of invoices

```matlab
%step through invoices
for xeroindex = 1:InvoiceNum
    %if this is a school with PO pull out the PO number
    if contains(Xero.School(xeroindex), "WO")
        purchaseindex = purchaseindex+1;
        AllPOindices(purchaseindex) = xeroindex;
        %identify string indices to pull out number
        POstartIndex = strfind(Xero.School(xeroindex), "WO");
        %pull out PO number
        InvoicePOnum = extractBetween(Xero.School(xeroindex), POstartIndex,...
            POstartIndex+10);
        %add current PO number to list of PO numbers
        POindex(xeroindex) = InvoicePOnum;
    %if this school has no PO pull out the school name
    else
        POindex(xeroindex) = Xero.To(xeroindex);
    end
end

XeroSetupExample(:,1) = Xero.InvoiceNumber;
XeroSetupExample(:,2) = POindex';
XeroSetupExample(:,3) = Xero.Date;
XeroSetupExample(:,4) = Xero.Cost;
XeroSetupExample
```

```
XeroSetupExample = 107×4 string array
    "US1817"     "WO190040899"                "6"     "485"
    "US2189b"    "WO190069176"                "6"     "3190"
    "US2196b"    "WO190067533"                "6"     "330"
    "US2323"     "WO190066819"                "6"     "2230"
    "US2324"     "WO190083971"                "6"     "4540"
    "US2325"     "WO190042678"                "6"     "1765"
    "US2326"     "WO190054801"                "6"     "1790"
    "US2327"     "WO190076082"                "6"     "3190"
    "US2328"     "WO190043042"                "6"     "290"
    "US2329"     "WO190093163"                "6"     "1765"
    "US2330"     "WO190064714"                "6"     "3190"
    "US2331"     "WO190091485"                "6"     "1160"
    "US2332"     "WO190051736"                "6"     "290"
    "US2333"     "WO190015855"                "6"     "125"
    "US2334"     "WO190051164"                "6"     "150"
    "US2335"     "WO190076082"                "6"     "813"
    "US2336"     "WO190052703"                "6"     "1740"
    "US2337"     "WO190076082"                "6"     "2981"
    "US2338"     "WO190050601"                "6"     "1765"
    "US2339"     "WO190094530"                "6"     "870"
```

```
"US2340"    "WO190010690"                               "6"    "150"
"US2341"    "WO190015777"                               "6"    "580"
"US2342"    "WO190050104"                               "6"    "2620"
"US2343"    "Center for Educational Innovation"         "6"    "870"
"US2344"    "WO190091485"                               "6"    "1160"
"US2345"    "WO190015160"                               "6"    "150"
"US2346"    "WO190044816"                               "6"    "1385"
"US2347"    "Center for Educational Innovation"         "6"    "1160"
"US2348"    "WO190080662"                               "6"    "150"
"US2349"    "WO190070987"                               "6"    "600"
"US2350"    "NYC Department of Education"               "6"    "75"
"US2351"    "Center for Educational Innovation"         "6"    "6780"
"US2352"    "WO190064690"                               "6"    "1450"
"US2353"    "WO190070987"                               "6"    "600"
"US2354"    "WO190095037"                               "6"    "4090"
"US2355"    "WO190095069"                               "6"    "3190"
"US2356"    "WO190095084"                               "6"    "3190"
"US2357"    "WO190095099"                               "6"    "3190"
"US2358"    "WO190095120"                               "6"    "3190"
"US2359"    "WO190095120"                               "6"    "290"
"US2360"    "WO190062314"                               "6"    "3480"
"US2361"    "WO190008136"                               "6"    "1160"
"US2362"    "WO190065084"                               "6"    "1450"
"US2363"    "WO190052703"                               "6"    "1740"
"US2364"    "WO190050601"                               "6"    "2635"
"US2365"    "WO190024083"                               "6"    "2030"
"US2366"    "WO190075694"                               "6"    "4980"
"US2367"    "WO190061843"                               "6"    "1359.05"
"US2368"    "M343 - The Peck Slip School"               "6"    "290"
"US2369"    "WO190061843"                               "6"    "2989.91"
"US2370"    "WO190070958"                               "6"    "2600"
"US2371"    "WO190076082"                               "6"    "5482"
"US2372"    "WO190093163"                               "6"    "150"
"US2373"    "WO190100980"                               "6"    "5950"
"US2374"    "WO190050601"                               "6"    "870"
"US2375"    "WO190092515"                               "6"    "1550"
"US2376"    "WO190064690"                               "6"    "15600"
"US2377"    "WO190073772"                               "6"    "8100"
"US2378"    "WO190019741"                               "6"    "150"
"US2379"    "WO190101379"                               "6"    "6380"
"US2380"    "WO190067640"                               "6"    "2600"
"US2381"    "WO190067650"                               "6"    "3000"
"US2383"    "WO190095915"                               "6"    "12000"
"US2384"    "WO190090995"                               "6"    "3000"
"US2385"    "WO190094300"                               "6"    "9000"
"US2386"    "WO190015160"                               "6"    "150"
"US2387"    "WO190017895"                               "6"    "3440"
"US2388"    "WO190029012"                               "6"    "500"
"US2389"    "WO190038471"                               "6"    "3050"
"US2391"    "WO190035797"                               "6"    "150"
"US2392"    "WO190036553"                               "6"    "300"
"US2393"    "WO190061843"                               "6"    "150"
"US2394"    "WO190040149"                               "6"    "150"
"US2395"    "WO190004534"                               "6"    "8230"
"US2396"    "WO190008690"                               "6"    "300"
"US2397"    "WO190033772"                               "6"    "290"
"US2398"    "WO190094530"                               "6"    "2760"
"US2399"    "WO190036293"                               "6"    "225"
"US2400"    "WO190034370"                               "6"    "300"
"US2401"    "WO190041340"                               "6"    "275"
"US2402"    "WO190080662"                               "6"    "870"
"US2403"    "WO190020724"                               "6"    "2005"
"US2404"    "WO190071416"                               "6"    "6780"
"US2405"    "WO190070987"                               "6"    "4800"
"US2406"    "WO190035964"                               "6"    "2600"
```

```
"US2407"     "WO190028147"                        "6"    "715"
"US2408"     "WO190077830"                        "6"    "2600"
"US2409"     "WO190062314"                        "6"    "300"
"US2410"     "WO190064690"                        "6"    "300"
"US2411"     "WO190050104"                        "6"    "1740"
"US2412"     "WO190014003"                        "6"    "300"
"US2413"     "WO190046201"                        "6"    "150"
"US2414"     "WO190068970"                        "6"    "300"
"US2415"     "WO190068972"                        "6"    "100"
"US2416"     "WO190042678"                        "6"    "150"
"US2417"     "WO190056005"                        "6"    "300"
"US2418"     "WO190052703"                        "6"    "25"
"US2419"     "WO190010653"                        "6"    "3580"
"US2420"     "WO190017938"                        "6"    "150"
"US2421"     "WO190008136"                        "6"    "1460"
"US2422"     "WO190024083"                        "6"    "150"
"US2423"     "WO190029022"                        "6"    "6090"
"US2424"     "WO190051736"                        "6"    "580"
"US2425"     "WO190051711"                        "6"    "4620"
"US2426"     "WO190024401"                        "6"    "1045"
"US2427"     "WO190044816"                        "7"    "150"
"US2428"     "Edison Township Board of Education"  "7"    "5245"
```

Match PO numbers of invoices with list of school PO numbers

```matlab
%step through invoices with POs
for NumPOinvoices = 1:length(AllPOindices-1)

    %pull out position of current PO in original list of invoices
    currentPOpos = AllPOindices(NumPOinvoices);

    %pull out current PO
    currentPO = POindex(currentPOpos);
    if (currentPO == "WO191003437")
        currentPO = 'WO190034370';
    end

    %boolean matrix of PO match between invoices and school PO
    intermatrix = strcmp(currentPO,allPOinfo);

    %If PO is in the tracker
    if ismember(1, intermatrix)
     %pull out location in PO list
     [row,column]= find(intermatrix == 1);
     %pull out school code
     SchoolCode = allPOinfo(row,1);
     %Change the PO array to Schools name
     POindex(currentPOpos) = SchoolCode(1);
    else
        %currentPO
        %error("PO not in tracker");
        continue
    end

    % determine total amount of PO charged and populate list --
    % POs charged
    [numPOsCharged, twocols] = size(POsCharged);
```

```matlab
    %if there are no POs charged populate list arbitrarily to begin
    if size(POsCharged) == 0
        POsCharged = ["000", "000"];
    else
        POsCharged = POsCharged;
    end

    %check to see if PO is already recorded in our final list - POsCharged
    chargedmatrix = strcmp(currentPO,POsCharged);

    %If PO is already recorded in POsCharged
    if ismember(1, chargedmatrix)
        [row,column]= find(chargedmatrix == 1);
        %add new invoice amount to old invoice amount--total amount charged
        %under this PO
        POsCharged(row,2) = str2num(POsCharged(row,2)) + ...
            table2array(Xero(AllPOindices(NumPOinvoices),5));
    else
        %PO not already recorded
        %column one is PO number
        POsCharged(numPOsCharged+1,1) = currentPO;
        %column two is amount charged
        POsCharged(numPOsCharged+1,2) = ...
            table2array(Xero(AllPOindices(NumPOinvoices),5));
    end
end
```

Move newly formatted data into xero spreadsheet

```matlab
Xero(:, 3) = [];
Xero.School(:,1) = POindex(1,:)';
Xero
```

Xero = 107×4 table

	InvoiceNumber	School	Date	Cost
1	"US1817"	"X080"	6	485
2	"US2189b"	"K187"	6	3190
3	"US2196b"	"Q178"	6	330
4	"US2323"	"K419"	6	2230
5	"US2324"	"M348"	6	4540
6	"US2325"	"X206"	6	1765
7	"US2326"	"Q289"	6	1790
8	"US2327"	"Q210"	6	3190
9	"US2328"	"Q114"	6	290
10	"US2329"	"K288"	6	1765
11	"US2330"	"M499"	6	3190
12	"US2331"	"Q160"	6	1160

	InvoiceNumber	School	Date	Cost
13	"US2332"	"X527"	6	290
14	"US2333"	"K690"	6	125
15	"US2334"	"Q125"	6	150
16	"US2335"	"Q210"	6	813
17	"US2336"	"X254"	6	1740
18	"US2337"	"Q210"	6	2981
19	"US2338"	"M276"	6	1765
20	"US2339"	"M148"	6	870
21	"US2340"	"Q293"	6	150
22	"US2341"	"Q293"	6	580
23	"US2342"	"R024"	6	2620
24	"US2343"	"Center f...	6	870
25	"US2344"	"Q160"	6	1160
26	"US2345"	"K096"	6	150
27	"US2346"	"X217"	6	1385
28	"US2347"	"Center f...	6	1160
29	"US2348"	"M278"	6	150
30	"US2349"	"M394"	6	600
31	"US2350"	"NYC Depa...	6	75
32	"US2351"	"Center f...	6	6780
33	"US2352"	"Q445"	6	1450
34	"US2353"	"M394"	6	600
35	"US2354"	"X498"	6	4090
36	"US2355"	"X498"	6	3190
37	"US2356"	"X498"	6	3190
38	"US2357"	"X498"	6	3190
39	"US2358"	"X498"	6	3190
40	"US2359"	"X498"	6	290
41	"US2360"	"Q311"	6	3480
42	"US2361"	"X313"	6	1160
43	"US2362"	"K539"	6	1450
44	"US2363"	"X254"	6	1740
45	"US2364"	"M276"	6	2635
46	"US2365"	"X339"	6	2030

	InvoiceNumber	School	Date	Cost
47	"US2366"	"K561"	6	4980
48	"US2367"	"K098"	6	1.3590e+03
49	"US2368"	"M343 - T..."	6	290
50	"US2369"	"K098"	6	2.9899e+03
51	"US2370"	"Q415"	6	2600
52	"US2371"	"Q210"	6	5482
53	"US2372"	"K288"	6	150
54	"US2373"	"WO1901..."	6	5950
55	"US2374"	"M276"	6	870
56	"US2375"	"M167"	6	1550
57	"US2376"	"Q445"	6	15600
58	"US2377"	"K488"	6	8100
59	"US2378"	"Q122"	6	150
60	"US2379"	"WO1901..."	6	6380
61	"US2380"	"K549"	6	2600
62	"US2381"	"K549"	6	3000
63	"US2383"	"R445"	6	12000
64	"US2384"	"K660"	6	3000
65	"US2385"	"Q566"	6	9000
66	"US2386"	"K096"	6	150
67	"US2387"	"K454"	6	3440
68	"US2388"	"M467"	6	500
69	"US2389"	"R051"	6	3050
70	"US2391"	"R445"	6	150
71	"US2392"	"K084"	6	300
72	"US2393"	"K098"	6	150
73	"US2394"	"K170"	6	150
74	"US2395"	"K698"	6	8230
75	"US2396"	"M018"	6	300
76	"US2397"	"M046"	6	290
77	"US2398"	"M148"	6	2760
78	"US2399"	"M148"	6	225
79	"US2400"	"M161"	6	300
80	"US2401"	"M197"	6	275

	InvoiceNumber	School	Date	Cost
81	"US2402"	"M278"	6	870
82	"US2403"	"M307"	6	2005
83	"US2404"	"M362"	6	6780
84	"US2405"	"M394"	6	4800
85	"US2406"	"M427"	6	2600
86	"US2407"	"M515"	6	715
87	"US2408"	"Q286"	6	2600
88	"US2409"	"Q311"	6	300
89	"US2410"	"Q445"	6	300
90	"US2411"	"R024"	6	1740
91	"US2412"	"X031"	6	300
92	"US2413"	"X047"	6	150
93	"US2414"	"X163"	6	300
94	"US2415"	"X163"	6	100
95	"US2416"	"X206"	6	150
96	"US2417"	"X214"	6	300
97	"US2418"	"X254"	6	25
98	"US2419"	"X267"	6	3580
99	"US2420"	"X268"	6	150
100	"US2421"	"X313"	6	1460

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